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ABSTRACT

A national study examined the ways in which career information is being provided at the secondary school level as well as the quality and value of this information. To identify and evaluate those career information resources that are currently available to secondary school students, researchers analyzed questionnaires completed by representatives from 1,894 schools and 4,883 students. They found that bound references, school-arranged experiences, and occupational kits and briefs are the most common resources. Much less common are computerized systems. Survey responses indicated that most schools offer a wide variety of career information resources. However, a study of the quality of available resources suggests that most students rely not on formal resources provided in schools but rather on informal sources such as parents, friends, and television. Also, fewer than one-third of the students surveyed thought that the resources provided by their schools were sufficient. Consequently, recommendations were made for correcting deficiencies, providing linkages, and improving computer-based systems. (MN)

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ED220663

SURVEY OF CAREER INFORMATION SYSTEMS
IN SECONDARY SCHOOLS

Final Report of Study 1

by

Warren Chapman
Martin R. Katz

Educational Testing Service
Princeton, New Jersey
August 1981

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Here, in no particular order, are those who helped make this survey possible.

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The Council of Chief State School Officers and its Committee on Evaluation and Information Service helped construct the survey instruments, recommended their approval, and supported our approach to the schools.

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Finally, personnel in over 1,800 schools took the time to fill out difficult questionnaires. Nearly 5,000 students sacrificed the time necessary to respond to their survey instruments. Support from the schools went from the principals through the district superintendents and, in some cases, right up to the state superintendent. We owe them a lot.

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CHAPTER I

BACKGROUND

This report presents the findings for the first of two linked studies conducted by Educational Testing Service for the National Institute of Education (NIE) in joint sponsorship with the National Occupational Information Coordinating Committee (NOICC). NOICC was established under Section 161(B) of the Vocational Education Act of 1963, as amended by Title II of P.L. 94-482. It consists of the Commissioner of Education, the Administrator of the National Center for Educational Statistics, the Commissioner of Labor Statistics, and the Assistant Secretary for Employment and Training. NOICC's mission, as defined by the original legislation and various amendments, has been translated into objectives that may be summarized as follows:

- To improve coordination between and communication among educators and those who plan training and research and information systems.
- To develop and implement an occupational information system with supply/demand data, uniform definitions and classification systems, standardized estimating procedures, and delivery systems designed for planners, decision-makers, and students or trainees.
- To assist in the planning and implementation of each State Occupational Information Coordinating Committee (SOICC).
- To give special attention to the problems of unemployed youth.

In 1977 the NOICC Steering Committee agreed to fund a number of research activities proposed by the Office of Youth Programs of the U.S. Department of Labor's Employment and Training Administration. Among the programs were two that seemed particularly relevant to NOICC's legislative mandate: (1) a national survey of how career information is being provided at the secondary school level and what its quality and value are, and (2) a comparative assessment of the effectiveness of different information delivery systems on the career awareness of youth.

Since the missions of NOICC and NIE converged with respect to career information and career development, NOICC agreed to transfer funds to NIE for the purpose of conducting research in support of NOICC's general concerns, and NIE agreed to undertake such research in pursuit of its aims. Thus the request for proposal (RFP) that grew out of this interagency collaboration combined in a single project the interests of the U.S. Department of Labor's Youth Program, NOICC, and NIE. Educational Testing Service (ETS) among others responded to the RFP and was ultimately awarded the contract.

The RFP and ETS's response proposed two consecutive studies over a period of two years (since extended to 30 months) to seek answers to these global questions:

1. What career information is currently being disseminated to secondary school students, how is it being provided, what is the quality of such information, and what is its value to students?

2. What is the effectiveness of alternative types of career information delivery systems on the career awareness of secondary school students?

The first question was to be answered in the first study (Study 1) and the second in its successor (Study 2). Only Study 1 will be considered in this report.

Research Questions

The research questions for Study 1 as excerpted from the RFP are listed in Table 1.* Question b1 (Where are the career resources physically located?) and part of b3 (When and under what circumstances can these resources be used by students?) were dropped because they were too unwieldy to handle through questionnaires as proposed in the sample design. Most of the questions are the sort that can be answered by surveys, and the sample design was based on that idea.

Subcontractor

Mathematica Policy Research, Inc., of Princeton, New Jersey, collaborated with ETS in the design of Study 1 and was the subcontractor for the collection of data. Mathematica's final report on their activities (Barbara Phillips, Career Information Systems in Secondary Schools: Final Report, September 1980) discusses the sample design, selection of the sample, collection and treatment of data, and analysis of nonresponse in complete detail. The report is too long for inclusion here. The remainder of this chapter summarizes its essential information. Readers who want to pursue in depth the procedures for conducting the survey and processing the data should make arrangements with ETS to see the full Mathematica report.

Sample Design

Sample frame. The proposal called for a sample of approximately 10 percent of all public secondary schools with grades 10, 11, and 12, with a concurrent sample of a small number of students in a subset of these schools. The sample frame selected for the survey was an extract of the school and district files of Market Data Retrieval (MDR), a commercial firm that produces educational mailing lists. This extract contained records for 20,297 schools, of which 18,066 had grades 10, 11, or 12, and 2,231 had a special designation. Investigation revealed that schools labeled as special were devoted to atypical populations, such as the handicapped, the homebound, or the incarcerated. These schools were excluded from the sample because the intent of the survey was to study career information resources available to the general population of high school youth. Table 2 lists the types of schools that were excluded. Following the decision to exclude special schools, Mathematica examined the entire list of the 18,066 remaining and eliminated 210 with names that indicated service primarily to the handicapped or residential status. Thus the sample frame was reduced to 17,856.

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*Tables and figures appear at the end of each chapter.

The school sample. Because of the government's particular interest in the employment problems of poor urban youth, NIE/NOICC sought a sample design that would provide accurate estimates of the resources available to this population as well as accurate national estimates. Mathematica responded with a design dividing the school population into three strata, as follows:

Stratum 1 included all schools in the central city of a standard metropolitan statistical area (SMSA) as defined in the 1970 Census, with 12 percent or more of their student bodies living in poverty as recorded on the MDR tape in accordance with the standard federal poverty guidelines (Orshansky index) as applied to the 1970 income data for the area served by the school. The 12 percent level was chosen because it yielded a reasonable division of schools with respect to poverty.

Stratum 2 contained schools in nonmetropolitan areas, as classified by the 1970 Census, regardless of the poverty status of their students. This stratum would provide information about rural youth, another concern of the government's.

Stratum 3 included all remaining schools, schools within SMSA's but not in the central city and schools in the central city areas with less than 12 percent poverty.

The 17,856 schools were distributed among the three strata as shown in Table 3, with approximately 10 percent in Stratum 1, 60 percent in Stratum 2, and 30 percent in Stratum 3. Upon examining the distribution, Mathematica weighed the advantages and disadvantages of alternative sampling plans, particularly proportionate sampling within strata vs. drawing samples of the same size from each stratum. Finding that the standard error of estimate was only slightly less accurate with equal sample size than with proportionate sampling, Mathematica recommended the equal size design, with consequent oversampling of Stratum 1 (center city, high poverty), in order to produce the most accurate data for the population of paramount interest. The recommendation was seconded by ETS and approved by the Research Advisory Council for the study, and subsequently accepted by NIE/NOICC. If 596 schools were selected from each stratum, the goal of a 10 percent sample would be achieved. Mathematica's experience with a mail survey of this type, where so many people in the decision-making command had power to disallow a school's participation and where the likelihood existed that additional ineligible schools would be uncovered, led Mathematica to expect a completion rate of about 50 percent (that is, about half the schools invited to participate would complete questionnaires). Consequently, 1,192 (596 x 2) schools were selected in each stratum.

To select the sample schools, Mathematica classified all schools in the sample frame in their appropriate strata. Each school was then assigned a random number from a computerized list of random numbers. The file was then sorted by strata and within each stratum by random number. The first 1,192 schools in each stratum were chosen for the sample.

The student sample. The proposal called for a sample of 3,528 students from 147 schools. Information directly from students was necessary to answer research questions about why students used resources and what the students were looking for (questions C3 and 4), as well as to help realize the general objectives of the study. The practical constraints of doing a survey of this size within a limited budget led to the choice of a sample design of eight students from each of the three grades in each of the 147 schools and an equal number of schools (49) in each stratum (resulting in deliberate oversampling of Stratum 1). Mathematica again expected a completion of only 50 percent, and consequently selected 98 sample schools to be approached in each stratum.

The schools for the student sample were drawn from the pool already selected for the school survey. (There was not enough time to permit selection from the schools in that pool that actually responded to the survey instrument.) The schools were chosen systematically, since the pool had already been listed in a random sequence. The sampling interval for each stratum (k_i, $i = 1,3$) was determined by dividing the total secondary enrollment of all schools in the stratum by 98, the number of schools to be chosen. Then a computer algorithm was used that accumulated enrollment across schools; when the enrollment reached k_i, that school was selected. This method of selecting proportionally to enrollment assured that each student within a stratum had an equal chance of being chosen.

Research instruments. The school and student instruments are reproduced in Appendixes A and B respectively. The instruments were developed by Mathematica and ETS in consultation with the project Research Advisory Council and the NIE Technical Advisory Panel. In addition, they were reviewed during the development process by the Committee on Evaluation and Information Services (CEIS) for the Council of Chief State School Officers. Upon receiving a positive recommendation from CEIS, the instruments and sample design were submitted to the Federal Education Data Acquisition Council (FEDAC) in accordance with government regulations and were ultimately approved by that body.

The need to limit the burden on the schools forced a few compromises during this developmental progress. But on the whole the instruments were very little altered from what had originally been proposed.

Relationship to research questions. The main intent of the questionnaires was to provide data for answering the research questions shown in Table 1. The relationship of each questionnaire item to the research questions is shown in the two tables in Appendix C. Some of the questions cannot be fully answered by survey instruments, namely a2, d3, and the second part of a1. The first two concern the quality of the information in the resources, and the third concerns their content. Although some of the items contribute to answering these questions, ETS made a separate study of quality and content. The findings are discussed later in this report.

Data Collection

State, district, and school cooperation. In late October of 1979, CEIS formally recommended that the Council of Chief State School Officers assent to the study. NIE, through Mathematica as its agent, immediately mailed letters to the top education officials in each state, describing the study, explaining its importance, and soliciting their permission to approach the selected schools and their cooperation in doing so. Eventually all 50 states agreed. Mathematica then sought the approval of district superintendents and solicited their help in determining the eligibility of all the schools selected from their district. Finally, the principals themselves were approached either by Mathematica or, in accordance with district or state policy, by someone in the district superintendent's office or a state office.

The approval process was much more complicated than this meager description implies. A great many agencies had to be reached by telephone when they failed to acknowledge the original letter. Procedures varied from state to state and district to district. Some states reserved to themselves the task of notifying districts; others gladly turned the whole matter over to Mathematica. One state insisted on getting approval by a planning agency that was unwilling to act before FEDAC had officially accepted the study. Information about a school or district was sometimes incomplete on the MDR tape, and states or districts were asked to supply the missing data. Approval was often contingent on filling out long, tedious forms. Obviously, the study demanded and received much cooperation among many different agencies and individuals.

Since the schedule for the mailout was February 25, 1980, no district approvals were accepted after mid-February. By then, district approval had been obtained to approach 2,773 schools, or 78 percent of the 3,576 drawn for the sample. Table 4 shows the status of schools with respect to district approval.

Data collection, school questionnaire. Packets containing the instruments were mailed to the principals of the selected schools in the consenting districts or to the person named by the district to conduct the survey. Some states and districts chose to distribute the instruments themselves, and their instructions were followed. A week after the mailout, a postcard was sent thanking the school for having completed the questionnaire or urging it to do so as the case might be. Two weeks after that mailing, on March 17, schools that still had not returned a questionnaire were sent another packet by certified mail. When the district chose to serve as distributor to the schools, follow-up telephone calls and replacement packets were directed to the responsible person named by the district superintendent.

Data collection, student questionnaire. The procedures for the student-sample schools were somewhat different. The packet included an approval that asked the school to name a contact person for the survey and to tell how the school's check (for $50.00) for participation should be made out. There was no second mailing to student-sample schools. Thank-you/reminder cards were sent on March 3. Schools that had not returned approval cards three weeks after the first mailing were called and replacement materials were sent only to schools that had mislaid the originals. A final telephone follow-up was made in mid-April to those schools that had consented to participate but had failed to return completed questionnaires.

Completion Rates

School questionnaire. Table 5 shows the completion rate for the school questionnaire for schools in consenting districts. A little over 68 percent (1,894) of the schools responded in time to be counted, while 31 percent (35 + 825) refused or did not return the instrument. A few schools turned out to be ineligible despite all efforts to eliminate them from the sample before the first mailout.

If the information in Tables 4 and 5 is combined and if the ineligibles are dropped from both tables, it will be seen that 1,894 schools (55.5 percent) completed questionnaires from the original pool of 3,412 eligible schools (3,576-145-19) that were originally approached; 1,518 schools refused outright or failed to respond.

The rate of response was unfortunately not uniform in all three strata. In Stratum 1 (center city, high poverty), 540 schools responded, making up 29 percent of the total sample, instead of the 33.3 percent that was sought. In Strata 2 and 3 (nonmetropolitan and metropolitan low poverty, respectively) 668 and 686 schools responded--about 35 percent in each case. If ineligible schools are eliminated, the response rate in all three strata was over 50 percent. The difference in response rates in the three strata is statistically significant, a matter that is discussed later in this chapter.

Student questionnaire. Table 6 shows completion rate for the student questionnaire by stratum. Both the number of questionnaires and the number of schools are given. As the table indicates, 4,883 questionnaires were returned from a total of 155 schools distributed in approximately equal proportions across strata. There were no statistically significant differences by strata in the number of schools returning student questionnaires. The 155 schools are 67 percent of the 232 student-sample schools for which permission had been granted by the district. There was much more intensive telephone follow-up for the student questionnaire than for the school one, resulting in comparable completion rates.

The lower portion of Table 6 under the heading "Matched Set" shows the number of schools where both school and student questionnaires were completed.

Analysis of Nonresponse

School questionnaire. At the request of ETS, Mathematica made a separate study of the extent of possible bias due to nonresponse. Questionnaire surveys, which are notoriously subject to low response rates, are vulnerable to the charge that respondents were a self-selected rather than representative group. For nonresponse to cause significant bias, there must be both a large proportion of nonrespondents and important differences between them and respondents on variables of interest. Nonrespondents include two groups: schools selected for the sample but for which permission was denied by the district and schools that received questionnaires but did not complete them.

Data for the analysis of nonresponse came partly from the MDR sample frame tape and partly from telephone interviews with a selection of nonresponding schools. The tape yielded information about enrollment, expenditures, grade span, metropolitan status, and poverty status. All of the eligible schools selected for the original sample could be compared on these characteristics. The telephone interview with a probability sample of 267 nonresponding schools (89 in each stratum) yielded information about the career information resources of the schools. Of the 289 schools telephoned, 255 (96 percent) completed the interview. No interviews could be conducted with schools in districts where permission had been denied, since such interviews would have violated agreements made with FEDAC and the Council of Chief State School Officers during the clearance process. Consequently, some of the nonrespondents--those for which district permission was never granted--cannot be compared to respondents with respect to career information resources.

Table 7 summarizes the result of the analysis. An "R" in a cell means respondent schools were significantly different from the nonresponding schools with respect to the variable associated with that cell--they had higher enrollment or more expenditure or a greater number of full-time professional staff.

"NR" indicates the reverse situation--the nonresponding schools were significantly more. All differences were significant at the .01 level except for grade span, number of full-time professionals, and presence of a director of career guidance, which were significant at the .05 level. It must be borne in mind that the nonrespondents on the first set of variables ("MDR tape") include a larger group than the nonrespondents on the second set ("telephone sample"). The latter group does not include schools that never received a questionnaire because permission to participate was denied by the district.

Table 7 shows that within each stratum differences exist between respondents and nonrespondents. Moreover, Strata 1 and 3 look different from each other with regard to total school expenditures per pupil. In Stratum 1 nonresponding schools had greater expenditures in both the school and the district; in Stratum 3 it is the responding schools that spend more. In Stratum 2, which contains rural schools, the nonrespondents are more likely to include schools with elementary grades. In Strata 2 and 3 respondents are more likely to have on their staff a director of career guidance or person with equivalent responsibility. In Stratum 1 respondents are likely to have greater numbers of full-time guidance professionals.

Mathematica also studied characteristics of schools as they reacted to the response process. This study consisted of, first, an analysis of the differences between schools for which district permission was granted and those for which it was not; second, an analysis of schools that, given district permission, completed a questionnaire and those that did not; and, third, an analysis of differences between schools that responded to the first wave of questionnaires and those that responded to the second wave. The purpose of the last analysis was to test the assumption that nonrespondents more closely resemble late responders than early responders.

In each analysis differences were found between the two groups, and the assumption tested in the third analysis was only partially confirmed. The differences, which are discussed in Mathematica's final report, will not be tabulated in this summary chapter. Although statistically significant, they were only a small fraction of a standard deviation and hence unlikely to influence the results appreciably.

In determining the weights to correct for the stratified sample design, ETS statisticians reviewed Mathematica's procedures and findings to see what adjustment, if any, should be made for nonresponse bias. This matter is discussed below.

Student questionnaire. The extent to which the student sample is representative of all students depends on the same considerations as the school sample. There is, in addition, another consideration, namely, whether a school followed the detailed instructions for selecting a random sample of its students.

In order to explore this last consideration, Mathematica called two students from each of the 142 schools that had supplied information on student identity. The students were asked how their schools had selected them. The categories of responses for the 142 schools are as follows:

Both random	74
Both nonrandom	20
Both questionable	1
One random, one nonrandom	18
One random, one don't know	11
One random, one questionable	9
Both don't know	1
One nonrandom, one questionable	8

It is clear that at least 20 percent of the responding schools used nonrandom procedures in selecting students. Unfortunately, there is no way to tell the full extent of nonrandom selection or the amount or direction of bias that may have been introduced into the sample because of it. A sample selected nonrandomly is not necessarily misrepresentative of the students at the school.

A great number of different assumptions would have to be made before weights could be assigned to adjust the student sample for representativeness. After examining all the issues, ETS concluded that there was not enough evidence to proceed and that the attempt to weight the sample was as likely to aggravate the situation as to improve it. Consequently, in this report the school sample is treated simply as a large number of students who responded to the questionnaire. Although there is a strong temptation to generalize to other groups--students within each stratum and students across the nation--such generalizations might be misleading. This is not to say that data from the student sample are not useful.

Bias Due to Inclusion of Ineligible Schools

Findings might be biased if ineligible schools were inadvertently included in the sample. Pains were taken to eliminate such schools before the sample was drawn on the basis of information on the MDR tape and by calls to schools with suspicious names.

When Mathematica wrote the district superintendents for permission to proceed, they named the sample schools in the district and asked the superintendents to identify the ineligible ones. Telephone appeals to nonresponding districts asked the same question. Later, when nonresponding schools were called, they were asked about their eligibility. Finally the schools that were called for the study of nonresponse were also asked about eligibility. All of these efforts necessarily took place after the sample had been drawn.

These activities revealed that ineligible schools had indeed been in the sample. The numbers are not negligible, consisting of about eight percent of the schools about which information was received after the sample was drawn. Also they are not distributed uniformly by stratum--58.5 percent of the 164 schools found to be ineligible were in Stratum 1, 11.6 percent in Stratum 2, and 29.8 percent in Stratum 3. Finally, since follow-up questions were forbidden to districts that had refused to participate, information about the proportion of ineligible schools is confined to districts for which permission was granted.

All of these matters were evaluated in determining weights for the derivation of national estimates for the school instruments.

Determination of Weights

Weights to be applied to each stratum had to account for the fact that the sampling was stratified by stratum, that ineligible schools were included in the sample, and that nonrespondent schools differed (in a statistical sense) from respondents.

School instrument. The weights to correct for the fact that samples of equal size were chosen from each stratum can be derived by a simple formula. The weight W_i for stratum *i* can be expressed as

$$\frac{N_i}{N}$$

where N_i is the number of schools in the stratum and N is the total number of schools. The weights (see Table 3 for the N's) are

Stratum 1	.095
Stratum 2	.594
Stratum 3	.311

These weights must be modified to correct for the fact that the sample contained ineligible schools. The proportion of schools in the sample as a whole cannot be determined with precision owing to the fact that follow-up calls were not possible to districts where permission had been denied. However, it is reasonable to assume that the proportions of ineligible schools found among those that were followed up in each stratum are the best estimate of the proportion in the total population in each stratum. This strategy produces new population estimates as follows:

	Original estimate	Revised estimate
Stratum 1	1,697	1,521
Stratum 2	10,599	10,396
Stratum 3	5,560	5,288
Total	17,856	17,209

The revised weights are as follows:

	Original estimate	Revised estimate
Stratum 1	.095	.088
Stratum 2	.594	.604
Stratum 3	.311	.307

These revisions are still roughly in the ratio of .1 to .6 to .3. They are, however, probably more precise.

The correction for response bias should take into account the degree of difference between respondents and nonrespondents as well as the fact that the differences are significant in a statistical sense. Differences that are of slight practical consequence may be statistically significant (i.e., unlikely to have occurred by chance). The differences uncovered in Mathematica's follow-up were indeed small in terms of standard deviations and percentage points. Furthermore, in the telephone survey the spokesman for the school was not necessarily the most knowledgeable person with respect to career information resources as was the case in the survey. Consequently, there is some uncertainty about the reliability of the follow-up information.

For all these reasons statisticians at ETS advised against further adjusting the data. It seems clear that if there is bias in the respondent group, it is in the direction of overestimating the true population values. Although methods for adjusting the estimates downward (e.g., the "hot-deck" method) could be used, ETS statisticians questioned whether the potential gain in precision if the adjustments were applied would be worth the risk of distortion if the assumptions underlying them were wrong. How much precision is necessary in this case? There seems to be no reason to believe that the adjusted estimates would be any more useful to NOICC and NIE than the unadjusted estimates. Therefore, national estimates in this report probably present a somewhat more optimistic picture than that which really exists. It is, nevertheless, a fair and useful representation.

Student instrument. As stated above, the numerous unknowns about the representativeness of the student sample persuaded ETS statisticians not to attempt to derive national estimates from it. To do so ran the risk of introducing more distortion than it would eliminate. Therefore, student data are summarized at the school level and are examined for relative results for students who responded. This is a large number of students from all regions of the nation; and even though it may not be a representative sample, the results are informative and useful.

Table 1

Research Questions From the Request for Proposal

a. Types and quality of career information resources

   1. What are the various types of career information resources currently available in secondary schools and what kinds of information do they contain?

   2. What is the quality of information contained in these resources?

   3. What types of school have what types and quality of career information resources?

b. Management of and access to career information resources[a]

   2. What school staff are responsible for these resources and what are their responsibilities?

   3. What arrangements must be made and by whom [for students to use these resources]?

   4. What types of schools have what management arrangements for career information resources?

c. Use of career information resources

   1. How often are resources used by students? Does frequency of use vary by type of resource?

   2. How often are resources used by a student? Does frequency of use differ for different categories of students?

   3. For what purposes do students use the resources and what motivates these purposes?

   4. What specific kinds of information do students seek and obtain from these resources?

d. Use of additional career information resources

   1. What resources do students use in career planning in addition to the resources of the school?

   2. How frequently do students use these additional resources as compared to their use of the school's resources?

   3. What is the quality of these additional resources as compared to the quality of the school's resources?

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[a] Question b1 of the RFP was eliminated by agreement with NIE and NOICC. The portion of b3 concerning the time and circumstances of use was also eliminated.

Table 2

Types of Schools That Are Ineligible for the Population

Schools for blind children
Schools for deaf children
Schools for orthopedically handicapped children
Schools for children with other handicaps
Schools for trainable mentally retarded children
Schools for educable mentally retarded children
Schools for aphasic children
Schools for exceptional children
Special education schools
Diagnostic schools for children with learning problems
Schools for pregnant girls
Hospital schools
Penal institution schools
Boarding schools
Homebound schools
Schools run by research institutions

Table 3

Number of Schools and Secondary Students in the Population by Stratum[a]

	School	Students
Strata		
Center city, high poverty	1,697	2,367,903
Nonmetropolitan	10,599	6,396,375
Metropolitan fringe; center city, low poverty	5,560	5,259,960
TOTAL	17,856	14,024,238

[a] Includes some schools later determined to be ineligible.

Table 4

Final Status of Schools After District Approval

	All Sample Schools (Includes Student-Sample Schools)	Student-Sample Schools Only
Permission granted	2,773	232
Permission refused	351	31
School ineligible	145	23
No response received	307	27
TOTAL	3,576	313

Table 5

Final Status of Schools for Which District Permission Was Received

	Number	Percent
Completed School Questionnaire	1,894	68.30
Ineligible	19	0.69
Refusal	35	1.26
No Response	825	29.75
TOTAL	2,773	100.00 %

Table 6

Completed Student Questionnaires by Stratum

	Center City High Poverty	Nonmetropolitan	Metropolitan Fringe; Center City Low Poverty	Total
Total				
Number of Student Questionnaires	1,598	1,555	1,730	4,883
Number of Student-Sample Schools	51	49	55	155
Matched Set				
Number of Student Questionnaires	1,534	1,555	1,720	4,809
Number of Student-Sample Schools	49	49	54	152

Table 7

Statistically Significant or Highly Significant Differences Between Responding and Nonresponding Schools

	Stratum[a]		
Variable (MDR tape)[b]	1	2	3
Secondary enrollment (school)	R[d]		R
Secondary enrollment per teacher			
Grade span		NR[f]	
Expenditures per pupil (total, school)	NR[e]		R
Instructional expenditures per pupil (school)	NR		
Secondary enrollment (district)			NR
Expenditures per pupil (total, district)	NR		R
Instructional expenditures per pupil (district)	NR		
Poverty level			NR
Variable (telephone sample)[c]			
Enrollment grades 10-12			
Percentages in urban, suburban, rural			
No. full-time equivalent professionals	R[f]		
Presence of a director of career guidance		R[f]	R[f]
Availability of courses in career planning			R
Availability of terminals or printers for computerized guidance			

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[a] Stratum 1 = center city, high poverty; 2 = nonmetropolitan; 3 = center city, low poverty and metropolitan fringe.

[b] Comparison on these variables included among nonrespondents the schools in districts where permission was denied.

[c] Comparison on these variables included among nonrespondents only schools that received a questionnaire but did not return it.

[d] "R" means that the responding schools were higher, had more of, or included lower grades than the nonrespondents.

[e] "NR" means nonrespondent schools were higher, had more of, or included lower grades than respondents.

[f] $p < .05$. All others are $p < .01$.

CHAPTER II

RESEARCH QUESTION A1

Research question a1 is "What are the various types of career information resources currently available in secondary schools, and what kinds of information do they contain?" The following discussion will consider these two elements in order.

Types of Career Information Resources

The types of career information resources were determined provisionally before the survey actually began in order to make up the two questionnaires. Considerable research and experience went into the identification and selection of items for Question 11 of Part B of the school instrument. This listing may be considered an answer to the first part of the research question. The 13 categories of resources listed in Question 11 allowed schools to respond "Other" if they had resources that were not listed. The number of "Other" responses was quite small, ranging from a low of 0.90 percent for Category G (computerized systems) in Stratum 2 to a high of 14.14 percent for Category B (occupational briefs and kits) for Stratum 3. For most categories "Other" responses amounted to less than 10 percent of the number of schools in the stratum. Therefore, the items listed for Question 11 may be taken as the set of occupational information resources currently available in the schools. Appendix A contains the school questionnaire.

The remainder of this analysis of available resources will examine the schools' responses to Question 11 in order to see which category of resource and which resources within each category are found with greatest frequency.

Categories of Resources Found Most Frequently

Table 8 shows for each stratum the number of schools that indicated they had one or more of the resources subsumed by the 13 categories listed for Question 11. The total number of schools in a stratum minus the number of schools that did not respond to any item in the category was taken as the number of schools that had at least one of the category items. The percentages for the national estimates, which were derived by applying the stratum weights described previously, were computed as 100 minus the national estimate of "No response."

Table 8 shows considerable uniformity across strata. In every stratum, bound references (Category A) are the most common resource, followed by school-arranged experiences and occupational briefs and kits (Categories K and B). In every stratum the seven most common resources are the same, and rank in almost exactly the same order: A, K, B, M, F, C, and H. Similarly, simulations, noncomputerized sorting materials, and computerized systems (Categories L, J, and G) are the least common, although not always in that order. It should be noted that the three most "popular" categories contain the most items, increasing the likelihood that a school would have at least one of the items on the list. Also, Category A includes the Occupational Outlook Handbook (OOH) and the Dictionary of Occupational Titles (DOT), the two most prevalent items in the whole list.

The relative rarity of computerized systems is not surprising. These resources are new and sophisticated compared with books or audiovisual materials, and they are expensive in terms of capital outlay (though not in terms of cost per student contact hour). They are least common in Stratum 2, where only 16 percent of the schools report access to such a system, as opposed to 28 percent for Stratum 1 and 38 percent for Stratum 3. Again, this is not an unexpected result. Stratum 2 is more rural than the other two strata; access to computer networks is presumably more difficult in this stratum than in urban areas. Also, schools in Stratum 2 tended to spend less for guidance materials than did schools in the other strata, making it less likely that they could or would get a computerized system.

Also noteworthy is the fact that schools in Stratum 2 rely less than do schools in the other two strata on book series and lists of employers (Categories D and E). Stratum 2 is 10 percentage points below Stratum 1 on the former and 20 points on the latter. Stratum 2 is more rural than the other two, and one may speculate that employers are more scattered, making lists of employers less useful to students in high schools. It is hard to tell why there should be fewer series of books in Stratum 2.

Most Common Resources within Categories

The number of resources within each category varies from one for Category L (simulations) to 14 for Category B (occupational briefs and kits). Which of these resources are found most frequently in each stratum? Among schools that have resources of a given category, which resource do they favor most? For example, if we look only at schools with computer-based systems, which systems occur most often?

Table 9 answers both of these questions. To be included in the table, a resource must be present in 50 percent or more of the schools in at least one of the strata that have resources of that category. To use computer-based systems once again as an example, we see that G5 (Guidance Information System or GIS) was found in 138 schools in Stratum 3. Although this was only 20 percent of all the schools in the stratum, it was 53 percent of the 262 schools that had a resource in the computer category. Consequently, G5 is included in the table even though it did not reach the 50 percent mark in either Stratum 1 or 2. The percentage figures in the last column are the national estimates for the sample as a whole, not for the subsets of schools that had resources of the various categories.

There is again considerable uniformity between the strata. The prevalence of the *OOH*, *DOT*, and conferences with counselors is noteworthy; these are the top three resources in each stratum when judged as percentages of the stratum as a whole. The lists for the "top ten" are almost identical for each stratum, although the order of 4-10 is different.

There are differences, too. Stratum 2 generally contains fewer resources when judged by either the stratum or category percentage. It is 10 percentage points or more behind Strata 1 and 3 on the *DOT* (A2), the *Encyclopedia of Careers* (A4), *Career World* (C1), *Your Future in...* (D3), and directories of businesses (E1). It is 21 percentage points lower on school-prepared lists of employers (E2), exploratory work experience (K3), and assistance from staff other than counselors (M2). We also note that in Strata 1 and 3, GIS was more common than a state system in the computer category; in Stratum 2 the situation is reversed. GIS is a commercial system marketed by TimeShare. One may speculate that the difference in cost between GIS and a state system makes the latter more attractive to schools in Stratum 2, which tends to have fewer resources of any sort. The situation with respect to computers is not at all clear, however. At the time of the survey, Ohio, Wisconsin, and Alabama had state systems based on GIS. Some schools in those states may have said they had GIS, others their state system, and still others both. Similar ambiguity may exist with the item "your state system." Fourteen states have systems based on (Oregon) Career Information System content. Schools in these states may have checked both "CIS" and "your state system" when in fact they have only one.

The Content of Career Information Resources

The conceptual framework that was prepared for this study (Chapman, 1979) developed the idea that career decision-making involves two realms, the decision-maker and the objects of the decision, i.e., occupations. Decision-makers, in their realm, bring to the decision various values, abilities, aptitudes, and physical as well as psychological resources. Occupations, in their realm, offer various rewards in their capacity to satisfy values, and they demand various aptitudes and abilities, and outlays of resources to attain them. Unfortunately, the two realms are not mirror images of each other. No occupation will ever fully satisfy every one of the decision-maker's values while drawing fully on his or her ability, aptitude, and fund of resources. Since no perfect marriage is possible, the aim of occupational choice is to find the option that provides the maximum attainable satisfaction while remaining within reach of aptitudes, abilities, and resources. If decision-makers are to decide by means of rational processes, they need information about both realms. Knowledge of self directs the search for information about occupations and the assessment of it. Knowledge of occupations allows the decision to be selective.

In this model of decision-making, the "content" of career information resources must inevitably include some aspects of decision-makers. It is not enough to say that content consists of facts about occupations.

Obviously, it is not possible in this report to consider the content of individual students. Therefore, in our examination of the "self" side of content, we will look at whatever apparatus the career information resource may have for bringing the content of the decision-maker's realm into juxtaposition with the content of the realm of occupational information. For publications such apparatus is almost wholly absent; for other resources, such as computer systems and work experience, it is a fundamental element in the rationale for using the resource.

Another characteristic of content is that it varies with the type of resource and the purpose it was designed for. Clearly, the content of the OOH differs from the content of a job-site tour. Marshall McLuhan's observation that the medium is the message contains more than a little truth when applied to occupational information.

In this section of the report it will be convenient to look at content by media, grouping Categories A-F as a single medium--publications. Each of the other categories is a distinct medium and will be considered separately.

Publications

The fixed format of the print medium affords very little scope for dealing simultaneously with content in the realm of the student and the realm of occupations. The items in categories A-F are all publications which deal with information about occupations. A few of the items make minimal attempts to bridge the realms of the decision-maker and the object of the decision by grouping occupations and presenting the groups in a table of contents. Readers can then use the table of contents to find groups which may or may not be related to their own interests or personal characteristics. The DOT and OOH, the two classics of occupational information, do attempt thus to group occupations into broad general categories and subcategories accessible through a table of contents or similar device. The DOT numbering system in itself is an attempt to group occupations to accommodate a variety of users. In both cases, however, the categories (for example, industrial groupings) are not necessarily related to personal characteristics or interests. The main emphasis in both publications furthermore is on giving information about one occupation at a time. Some of the briefs listed in Category B that are available in sets (kits or "libraries") are also organized by groups or classes, as are the college directories in Category F that list colleges by subject of degree or occupation being prepared for.

The GOE and AEL Worker Trait Group materials, on the other hand, focus on the relationship of occupations to personal interests. They provide descriptions of duties, skills, and requirements of groups of occupations that have in common a selected interest field; they do not give information on individual occupations except to list their titles and DOT numbers.

Hence, it would be fair to say that, except in a few cases in a very general way, the content of the publications in categories A-F focus on information about occupations, leaving it up to the decision-makers to make bridges between that realm and their knowledge of themselves.

Tables 10 and 11 summarize the information content (in the occupational realm) of the occupational information resources listed as items A1-F2 in the questionnaire. Table 10 covers items A1-B8, Table 11 B9-F2. In both tables, and in Tables 12 and 15, the categories of content come from U.S. Department of Labor (1977) with modifications. They show that no single resource contains all the information a counseling office presumably needs.

Of the published resources, the Occupational Outlook Handbook (OOH) and Hopke's Encyclopedia of Careers come closest to being complete. They both cover national information on all aspects of job duties, education, personal and other requirements, outlook and salary for over 350 occupations. However, if certain information is difficult to get for a particular occupation, it is sometimes omitted without comment, a practice followed by most of the publications written in paragraph form. Also, local information is absent.

The blank spaces on the tables are significant. For instance, they show that each of the three major government publications (OOH, DOT and GOE) specializes. The Dictionary of Occupational Titles (DOT), 1977, although a classic in defining occupations and describing job activities in detail, does not pretend to give, as the OOH does, information on outlook, salaries, education, training, or possible employers. The Guide for Occupational Exploration (GOE), which clusters occupations into groups with similar general duties and interests, does not define any occupations. It gives for each group a list of names with DOT numbers, and refers the reader to the DOT for descriptions of the specific occupations. Thus while the GOE gives information that the DOT does not on personal characteristics, interests, training and licensing in general, both publications avoid the time-related questions of outlook and salary, which are covered in the OOH. Hence it is only the OOH that must publish a new edition every two years; the DOT comes out much less frequently; the GOE has been published only once.

A privately published book, the Worker Trait Group Guide of the Appalachia Educational Laboratory, is almost identical in content to the GOE, although in a more popularized format with pictures and perhaps a little more detail.

Other specialized publications as shown by blanks on the checklist are I Can Be Anything, which specializes in brief descriptions of occupations that might offer opportunities for women; Employment Opportunities for the Handicapped, which makes a point of indicating after each occupational description the types of handicap that would not interfere with such an occupation; and The National Apprenticeship Program, which is mostly a list of apprenticeable occupations (details of training courses are available in special apprenticeship booklets for each occupation).

The handbooks of the military describe very briefly the tasks, aptitudes needed, and related army assignments for a large number of occupations, but, as the blanks indicate, without information on outlook or salaries in the civilian world.

Most of the series of career briefs cover information similar to that in the OOH, often giving more details on daily activities and duties, but only for one occupation at a time. The SRA, Chronicle Guidance briefs, and vocational biographies are examples. Some of the briefs purposely omit certain information. The Job Fact Sheets, for instance, do not attempt to keep up with outlook and salaries. The Guidance Centre briefs, which contain much information on daily tasks and personal requirements, are published in Canada and therefore give Canadian salary and requirements for licensing and entry.

State briefs are variable. They are often very complete and contain state information on salaries and outlook that is not available in federal publications or commercial briefs or books, but of course they differ from state to state. The publications of professional associations and businesses and industries also vary widely. They are often colorful and attractive, but are more likely to gloss over outlook and salary or special problems.

Periodicals, of course, will vary in their content from issue to issue. Career World and Real World are commercial publications aimed at the school market. They contain articles on different occupations in each issue. Career World, in particular, often gives very extensive information on job duties, working conditions, outlook, pay, training, related jobs, personal qualifications and other sources of information, written in a lively and interesting manner. Real World is also designed to be appealing to the high school student; it uses photographs, artwork, and newspaper style effectively. It may tend to include more high school level occupations than Career World. One excellent feature of both is that they usually give places to write for more information.

The Occupational Outlook Quarterly (OOQ) is another government publication which serves as an outlet for Bureau of Labor Statistics information. Articles on individual occupations supplement the OOH during the two years between editions.

Occupations in Demand is a monthly government newspaper based on computerized listings of job openings with the United States Employment Service. It gives only the number of openings, cities where they are located, and the range of salaries offered. The other items in that column on the checklist are therefore blank. Civil Service Exam announcements (federal and state), which list government job openings, also give short descriptions of the work, education and experience requirements, and starting salaries.

Because of their length, the books on individual occupations can include far more details on job duties, working conditions, strategies for entry, advancement, and transfer than the briefs and compendiums. The series are all similar in their content and approach, but each individual book is written by a different author with a different approach.

Directories of businesses and industries give names and locations of specific employers. Directories of colleges and vocational schools give the names and addresses of schools or colleges offering specific programs for specific occupations. They do not give any other information.

Computerized Systems

All of the computerized systems considered here have some explicit apparatus for bridging the realm of self and the realm of occupation. This apparatus, which does not exist for most publications, must be regarded as an important part of content.

In doing the research summarized in this report, Educational Testing Service conducted a separate study of 17 computerized systems then in operation. There is not space here to describe that study fully. Also, a more theoretical analysis of the implications of computer-assisted guidance was an offshoot of that study. This report draws heavily on those studies, and the reader is urged to review them. They are:

Laurence Shatkin. Computer-Assisted Guidance: Descriptions of Systems. Research Report RR-80-23. Princeton, New Jersey: Educational Testing Service, October 1980.

Martin R. Katz and Laurence Shatkin. Computer-Assisted Guidance: Concepts and Practices. Research Report RR-80-1. Princeton, New Jersey: Educational Testing Service, March 1980.

Tables 12, 13, and 14 summarize findings about the content of computerized systems. Table 12 reports the content of the occupational realm of information. The format is the same as for publications (Table 10) so that the two contents can be compared. Table 13 shows the nature of the content of the "self" realm of information. Table 14 explains the acronyms that the systems use to describe themselves.

There are few surprises in Table 12. The occupational information content of computerized systems can be described with the same headings as the content of publications, and in fact the formats of Tables 10 and 12 differ only in the names across the top of the table. Computerized systems far more than publications contain regional (state or local) information. One reason is that NOICC has made this feature a requirement for federal support. Another reason is that updating a computerized system is generally easier than updating a publication, especially if the system is distributed over a network.

A few observations should be made. Tables 12, 13, and 14 name more systems than are specified under Category G of the questionnaire. The reason is that most of the systems in the tables qualify as "your state system" in the questionnaire. Fourteen state systems, of which seven are treated as separate systems in Tables 12, 13, and 14, are adaptations of the Oregon CIS; that is, they retain the Oregon CIS QUEST feature and some of the Oregon files, but may have different local files. Three of the state systems are varieties of GIS and retain the features of GIS with the addition of local files. CHOICES is a Canadian system with Canadian information; it is being adapted for use in the United States.

Table 12 shows that coverage of information about occupations compares favorably with the coverage in publications. The descriptions in the computerized systems are usually shorter than those in publications like the OOH because of limitations on what a computer terminal can handle: a cathode-ray tube terminal is usually restricted to 80 characters per line by 24 lines per display; a teletype is restricted by the amount of time required to type out a message at a rate (usually) of 30 characters per second. Limitations of storage capacity are also a factor.

Table 13 shows, in very truncated form, the "content" of the systems in the realm of self. It is impossible to show the "content" of individuals as items of factual information analogous to the content of occupational information. Therefore the table merely indicates whether some form of self-appraisal exists, on line or off line; whether the systems allow users to impose their personal specifications on the search for occupational information (structured access); and whether users can get direct access to occupational information as they would in a publication.

Table 13 shows that all the systems have these features. The method of appraisal of self varies. CIS and its offshoots use the QUEST questionnaire, which asks users to identify, off line (i.e., before interacting with the computer), the aspects of occupations that are important to them. CHOICES uses its own questionnaire, an interest inventory, and the General Aptitude Test Battery (GATB). COIN has its own occupational profile questionnaire. CVIS is concerned mainly with academic rank and potential level of educational achievement. DISCOVER has on-line weighting of values and (both off and on line) Self-Directed Search (SDS) and an interest inventory. MOIS (Massachusetts) uses a questionnaire exploring interests and another exploring financial resources. MOIS (Michigan) uses SDS, the Ohio Vocational Interest Survey (OVIS), and its own questionnaire. GIS and its offshoots (OCIS, SOICC, and WCIS) allow users free choice in accessing--i.e., informal, ad hoc appraisal. SIGI has an elaborate on-line values appraisal and, as a local option, an appraisal of competence to cope with academic preparation for entry into selected occupations.

All the systems also allow structured access--that is, they have the capacity to identify occupations that meet a number of specifications imposed by the user. The number and the nature of the specifications vary from system to system. They are related to the information about self revealed by the appraisal. For example, students who take the QUEST questionnaire off line identify occupational characteristics (up to 21 of them) that are important to them in the search for a congenial occupation. They may then employ as many of these as they wish in the search. The computer retrieves a list of occupations that meet the specifications. Thus the structured access provides a bridge between the realm of self and the realm of occupations by supplying a list of options from the latter that meet the specifications of the former.

The variables used in structured search are different in different systems, as shown in Table 13. Some search on a number of different variables, such as aptitudes and abilities, preferences with regard to physical requirements, characteristics of occupations, and interests. Others search primarily on interests and/or temperaments. Others search primarily on values. These differences are important in the assessment of content of both the self and occupational realms. The conceptual framework (Chapman, 1979) points out that the theoretical approach to guidance (if any) embodied in a system influences the rendering of occupational information, as well as the search algorithms. A system that accepts interests or SDS as its approach will necessarily emphasize interests or temperaments as the content of the self realm, and will construe certain occupational information in light of interests and worker traits in the occupational realm. Consequently, the fact that all the systems permit structured access does not mean that their content, in either realm, is equivalent. Students for whom it is unimportant (i.e., of little value) to find expression of their interests in their work will have difficulty with systems that place heavy emphasis on interests.

All systems also allow direct access, in which respect they function in the same manner as publications. The content available through direct access is shown in Table 12. Sometimes direct access provides information at two levels, summary and complete descriptions. The systems vary in the number and type of files that can be directly accessed.

Audiovisual Materials

To analyze in detail the content of all audiovisual resources available to the secondary schools in the United States would be a separate study in itself and a major undertaking. There are so many producers of these materials, and even though some follow a general pattern, each film, filmstrip, or tape tends to be unique.

In addition, the purpose of audiovisual materials is different from that of written material. They are not likely to be used as a reference work for students to look up a particular fact. Audiovisuals are more often used to expand the awareness of students, to introduce the world of work in general or the wide variety of occupations in particular, to introduce new possibilities, to show career alternatives, or to survey particular fields. They are more likely to be used to "motivate" students to choose a career or to "arouse interest" in particular occupations.

Thus the most important content of audiovisuals is the general impression they create, the "feel" of an occupation they give. As the catalog descriptions of the films and filmstrips in the Bibliography of Current Career Information (Weinstein, 1978) indicate, many films and filmstrips are notable chiefly because they show the general conditions of work, such as work settings, training sites, machinery and tools used, the range of skills needed and techniques used, the sights and sounds of a job. Some also demonstrate the interpersonal contacts on a job, some emphasize roles in contact with other workers, and some are especially good for showing people in nontraditional settings, for example, women actually doing work previously thought to be only for men.

Some illustrate graphically the challenges, dangers, and disadvantages of a job as well as the rewards, such as the chance to help society, achieve personal satisfactions, gain recognition, find leisure, get the satisfaction of making useful things, or understand the place of imagination and risk taking.

Visuals may also give the wrong impression; that is one of their dangers. They may also become dated quickly and then alienate students as well as give wrong information.

On the other hand, in addition to showing job duties and job settings, films and tapes may also give factual information such as education and other entry requirements, salaries, advancement possibilities, and so on. The NVGA Bibliography, for instance, recommends career films and filmstrips that meet the content (and other) criteria of the NVGA Guidelines for the Preparation and Evaluation of Nonprint Career Media (1977). One film noted as "different" because it did not include that information was nevertheless recommended as serving other purposes.

Thus, content may include qualifications for beginning positions, necessary training, prospects for advancement, earnings, working conditions, employment prospects (outlook), advantages and disadvantages, obstacles and rewards, personal qualities, the relation of a career to values, needs, interests and abilities, concepts of credentials and competencies, and so on. Not all films or tapes include all that information, however, or are seen as lacking if they do not include it.

The content of audiovisual media is not limited to the occupational realm. There are many cassettes and films devoted to the realm of self. Some concern career education, some concern self-discovery, and some concern career awareness. However, of necessity they lack an apparatus for bridging the two realms.

With audiovisual materials, the medium is quite definitely part of the message. The immediacy that film is capable of achieving, but seldom achieves, is an important aspect of its content.

Microforms

For all practical purposes, the category Microforms means VIEW (Vocational or Vital Information for Education and Work). VIEW originated as a deck of microfilm aperture cards with a 1 1/2" by 2" window in which a piece of microfilm is glued containing four typed pages of information about an occupation or program of education and training. Illustrations are sometimes included. In some states there are two cards per occupation; the first contains information about the state as a whole, the second information about the user's region. The aperture cards are read by means of a viewing machine (reader-scanner), which may sometimes be capable of making copies that students can take with them (reader-printer).

VIEW is not a copyrighted name and the VIEW materials used in various states are not produced, distributed, or controlled by a single agency. Every microform system that calls itself VIEW is an independent entity. The content of various VIEWs is usually similar; the differences are the order in which information is presented, the presence or absence of regional information, use of illustrations, selection of format, and use of microfilm as opposed to microfiche.

Table 15 shows the content of the occupational information realm for three VIEW systems, Oklahoma VIEW, Florida VIEW, and Missouri VIEW. The table is in the same format (with minor differences) with the same headings as Tables 10 and 12. Consequently, the content of the three VIEW systems may be compared with the content of publications and computerized systems. In general, the coverage of topics is about the same in all three categories. The amount of coverage of the individual topics is, however, often not the same. Publications, with almost unlimited space, tend to give the fullest coverage. Microforms and computers are much more limited in space.

In the "self" realm of information, the content of VIEW systems is generally lacking. In this respect, VIEW resembles publications. Oklahoma VIEW does, however, offer separate appraisal and structured access. Appraisal consists of a questionnaire that is keyed to a needlesort, an approach much like QUEST for the CIS computerized systems. The structured access allows the user to specify as many as 49 characteristics for the search. Also, a separate Data, People, Things method allows the user to select a group of occupations based on DOT groupings.

Although neither Florida VIEW nor Missouri VIEW provides structured access, they both have means of appraisal through self-awareness inventories in the user guide. The inventories examine aptitudes, preferences, educational goals, background, economic returns, job advantages and disadvantages, and favorite school subjects. The results of the inventories are then entered on work sheets that allow users to keep track of the corresponding attributes of occupations.

Noncomputerized Sorting Materials

Noncomputerized sorting materials (key-sorts or needlesorts) are a means of clustering occupations in accordance with several characteristics simultaneously. Their purpose is the same as that of the structured access search in computerized systems. They produce lists of occupations or groups of occupations that match specifications imposed by the user. Since the specifications differ for different users, the clusters also differ.

Occupations may also be clustered on the basis of interest scales or personality types. Users who have received scores on the associated inventories can consult manuals (or have counselors consult the manuals) to find lists of occupations that presumably fit their interests or worker traits. The manuals consequently qualify as a type of information delivery system.

Since the content of these systems is variable, it is difficult to tabulate. The sorting devices are not complete systems in themselves. They are almost always used in conjunction with something else--interest inventories, filmstrips, workbooks, and standard publications which contain the factual content. Thus these sorting devices serve as bridges between the realm of self and the realm of occupation. The "content" of information about self resides in whatever method of appraisal the systems employ; the "content" of information about occupations resides in the resources (usually the OOH, DOT, VIEW deck, or special guides) that the users are referred to for explicit information about the occupations retrieved by the search.

The sorting devices are, however, not entirely devoid of factual information. Occupations identified in the search are known to fit the specifications that were selected for the search. Moreover, the cards that are used in the needlesorts usually contain brief printed descriptions of the occupation or worker trait group represented by the card. But for the most part, what is commonly thought of as "content" is not in the sorting device.

School-Arranged Experiences

Again, the informational "content" of school-arranged experiences is too variable to tabulate in any useful way. The informational content in courses in career planning (Item K1) and occupational units infused in subject matter classes is likely to consist of one or more of the resources previously discussed. For example, career education courses often draw on self-assessment materials, such as inventories and questionnaires, to bring to light information about the self realm, and on numerous standard resources, such as publications, films, computers, and so on, for information about the occupational realm. But content may also include such things as peer counseling or work experience which cannot be tabulated at all. Where content is infused throughout the curriculum in subject matter courses, it is even harder to tabulate because teachers vary so much in their training, subject field, and interest in serving as an occupational information resource.

The content of the other experiential activities that comprise Category K is even harder to tabulate because it depends on both the student and the experiences he or she encounters. Some idea of the variety of activities and their content can be found in the Review of the Literature for this study (Shatkin, Weber, and Chapman, 1980).

Other Resources

The "content" of simulations (Category L) and personal contact with school staff (Category M) is impossible to tabulate in any useful way. The informational content of simulations is limited to the activity being simulated and hence is very restricted. The simulations consist of work samples, often involving hands-on activities, that provide almost no factual information about the occupation of the sort shown in Tables 10, 11, 12, and 15. They may, on the other hand, provide considerable information about the realm of "self"--the user's liking for the activities and aptitude in performing them.

As to personal contact with school staff, the content cannot even be estimated. It depends on the qualifications of the staff to serve as a resource or delivery system, the amount of time available to the staff, and the students' motivation in seeking information. Clearly, there are severe limitations on the amount of knowledge that staff can have at their fingertips. This is not to say that the importance of staff as resources is diminished. Face-to-face communication is often a most influential medium.

Table 8

Most Common Categories of Career Information Resources

	Stratum						
	1 (N=540)		2 (N=668)		3 (N=686)		Nat'l Est.
Category	Freq[a]	percent of stratum	Freq[a]	percent of stratum	Freq[a]	percent of stratum	percent[b]
A Bound references	528	98	647	97	681	99	98
B Occupational briefs and kits	492	91	603	90	643	94	91
C Periodicals	443	82	508	76	581	85	79
D Book series	234	43	219	33	334	49	39
E List of employers	341	63	288	43	443	65	52
F Educational directories for occupations	460	85	554	83	631	92	86
G Computerized systems	151	28	110	16	262	38	24
H Audiovisual materials	431	80	488	73	543	79	76
I Microforms	234	43	292	44	314	46	44
J Noncomputerized sorting	126	23	224	34	258	38	34
K School-arranged experiences	521	96	626	94	667	97	95
L Simulations	118	22	112	17	134	20	18
M Personal contact with school staff	481	89	554	83	617	90	86

[a] Frequency = No. of schools in the stratum minus no. of "No response" in the category.

[b] 100 minus percent "No response" for the national (weighted) estimate for the category.

Table 9

Most Common Career Information Resources

Category and item	STRATUM 1 (N=540) Freq	1 (N=540) Percent of Stratum	1 (N=540) Percent of Category	2 (N=668) Freq	2 (N=668) Percent of Stratum	2 (N=668) Percent of Category	3 (N=686) Freq	3 (N=686) Percent of Stratum	3 (N=686) Percent of Category	Nat Est
A1 Occupational Outlook Handbook	508	94	96	599	90	93	667	97	98	92
A2 Dictionary of Occupational Titles	477	88	90	523	78	81	624	91	92	83
A4 Encyclopedia of Careers & Vocational Guidance	272	50	52	262	39	40	390	57	57	46
A8 Occupational Handbooks for the Military	393	73	74	487	73	75	546	80	80	75
B4 Chronicle Guidance	251	46	51	282	42	47	394	57	61	47
B5 SRA Briefs	254	47	52	246	37	41	315	46	49	40
B11 Pamphlets by Professional Associations	297	55	60	325	49	54	426	62	68	53
B12 Pamphlets by Private Businesses	276	51	56	287	43	48	396	58	62	48
C1 Career World	261	48	59	256	38	50	361	53	62	44
C3 Occupational Outlook Quarterly	300	56	68	321	48	63	425	62	73	53
D2 Your Career in ... (Book series)	130	24	56	121	18	55	176	26	53	21
D3 Your Future in ... (Book series)	172	32	74	131	20	60	248	36	74	26
E1 Directories of businesses	183	34	54	161	24	56	247	36	56	29
E2 School-prepared lists of employers	275	51	81	189	28	66	337	49	76	37
F1 College directories arranged by occupations	371	69	81	450	67	81	523	76	83	70
F2 Vocational school directories	408	76	89	464	69	84	572	83	91	74
G5 Guidance Information System	73	14	48	42	6	38	138	20	53	11
G6 Your state system	38	7	25	72	11	65	103	15	39	12
H2 Externally produced A-V materials	402	74	93	456	68	93	521	76	96	71
I1 State or regional microfilm	195	36	83	273	41	93	271	40	86	40
J1 Key or needlesort	52	10	41	116	17	52	116	17	45	17
J2 Score interpretation guides for inventories	87	16	69	132	20	59	176	26	68	21
K2 Occupational Information units in subject matter classes	349	65	67	401	60	64	458	67	69	62
K3 Exploratory work experience	405	75	78	329	49	53	483	70	72	58
K4 Career days, speakers, etc.	426	79	82	493	74	79	531	77	80	75
K7 Job site tours	382	71	73	372	56	59	430	63	64	59
K9 Conferences with community representatives	291	54	56	242	36	39	295	43	44	40
L1 Simulations	118	22	100	112	17	100	134	20	100	18
M1 Conferences with counselors	471	87	98	540	81	97	597	87	97	83
M2 Assistance from other staff	345	64	72	238	36	43	388	57	63	45

Table 10

Information Content of Publications

(Items A1-B8 on Questions B11, Appendix A)

		A1 (OOH)	A2 (DOT 1977)	A3 (GOE)	A4 (Hopke)	A5 (I Can Be....)	A6 (EO for H)	A7 (Nat. Appren.Prg)	A8 (OH of Military)	A9 (WTG of AEL)	A10 (Other)	B1 (B'nai B'rith)	B2 (Careers Inc.)	B3 (Catalyst)	B4 (Chron Guide)	B5 (SRA)	B6 (Finney)	B7 (Guid Centre)	B8 (Job Fact Sheet)
DESCRIPTIVE INFORMATION	DOT code	✓	✓	✓	✓				✓	✓			✓		✓	✓			
	Duties or tasks	✓	✓	✓ g	✓	✓	✓		✓	✓ g		✓	✓	✓	✓	✓	✓	✓	✓
	Special tools, equipm.	✓	✓	✓ g	✓	✓	✓		✓	✓ g		✓	✓	✓	✓	✓	✓	✓	✓
	Related occupations	✓	✓	✓ g	✓				✓	✓ g		✓	✓	✓	✓	✓	✓	✓	✓
	Opportunities for advancement	✓			✓							✓	✓	✓	✓	✓	✓	✓	✓
	Working conditions (e.g., indoors or outdoors, hours)	✓		✓ g	✓		✓			✓ g		✓	✓	✓	✓	✓	✓	✓	✓
	Other (Spec. problems; many details)	✓	✓	✓ g	✓	✓	✓			✓ g		✓	✓	✓	✓	✓	✓	✓	✓
PERSONAL REQUIREMENTS	Temperaments	✓			✓								✓	✓	✓	✓	✓	✓	✓
	Aptitudes	✓		✓ g	✓		✓		✓	✓ g		✓	✓	✓	✓	✓	✓	✓	✓
	Physical demands	✓		✓ g	✓		✓		✓	✓ g		✓	✓	✓	✓	✓	✓	✓	✓
	Other (more details)	✓		✓ g	✓					✓ g		✓	✓	✓	✓	✓	✓	✓	✓
OTHER REQUIREMENTS	Acceptable Handicaps						✓												
	(E.g., licensing, union membership)	✓		✓ g	✓	✓	✓			✓ g		✓	✓	✓	✓	✓	✓	C	

KEY: N = national R = regional S = state L = local

C = Canada ✓= geographical distinction not appropriate

g = for groups of occupations

Table 10 (continued)

		A1 (OOH)	A2 (DOT)	A3 (GOE)	A4 (Hopke)	A5 (I Can Be..)	A6 (EO for Handi-)	A7 (Nat. Appren.Pro	A8 (OH of Milit)	A9 (WTG of AEL)	A10 (Other)	B1 (B'nai B'rith)	B2 (Careers Inc)	B3 (Catalyst)	B4 (Chron Guid)	B5 (SRA)	B6 (Finney)	B7 (Guid. Centre)	B8 (Job Fact Sheets)
ECONOMIC INFORMATION[a]	Number and distribution of workers (current)	N				N											N		
	Occupational Outlook																		
	Demand	N			N							N	N		N	N	N		
	Supply	N											N		N	N			
	Relationship between demand and supply	N											N		N	N			
	Conditions affecting outlook	N			N							N	N	N	N	N	N	C	
	Opportunities for special groups	N			N	N						N	N	N	N	N			
	Salary range	N			N	N						N	N	N	N	N		C	
	Starting range	N			N	N						N	N		N	N		C	
	Average salary	N			N	N							N		N	N		C	
	Top salary	N			N	N						N	N		N	N		C	
	Fringe benefits	N			N	N						N	N		N	N		C	
	Other																		

KEY: N = national R = regional S = state L = local
✓ = geographical distinction not appropriate C = Canada

[a] Complete economic information is not always available for all occupations.

Table 10 (continued)

		A1 (OOH)	A2 (DOT	A3 (GOE)	A4 (Hopke)	A5 (I Can Be....)	A6 (EO for Handi..)	A7 (Nat Appren Pro)	A8 (OH of Military)	A9 (WTG of AEL)	A10 (Other	B1 (B'nai B'rith)	B2 (Careers Inc)	B3 (Catalyst)	B4 (Chron Guid)	B5 SRA)	B6 (Finney)	B7 (Guid Centre)	B8 (Job Fact Sheets)
EDUCATION OR TRAINING	Entry requirements	✓		✓ g	✓	✓			✓	✓		✓	✓	✓	✓	✓	✓	C	✓
	Types of schools providing training	✓			✓	✓			✓	✓		✓	✓	✓	✓	✓	✓	C	✓
	Programs of study at schools	✓			✓	✓			✓	✓		✓	✓	✓	✓	✓	✓	C	✓
	Training programs	✓			✓	✓		✓		✓		✓	✓	✓	✓	✓	✓	C	✓
	Financial aid																		
	Other/on-the-job training(e.g. work experience)	✓							✓					✓	✓	✓	✓	✓	✓
POTENTIAL SATIS-FACTIONS	Interests	✓		✓	✓					✓		✓	✓	✓	✓	✓	✓	✓	✓
	Values											✓	✓	✓	✓	✓	✓	✓	
	Other											✓	✓	✓	✓	✓	✓	✓	✓
EMPLOYMENT	Names of employers																		
	Other information about employers	✓			✓		✓					✓	✓	✓	✓	✓	✓	C	✓
SOURCES OF FURTHER INFORMATION	Organizations	N			N	N								N	N	N	N	C	N
	Publications					✓									✓	✓	✓	C	
	Knowledgeable persons																		
	Other																		

Key: N=national R=regional S=state L=local ✓=geographical distinction not appropriate
g=for groups of occupations C=Canada

Table 11

Information Content of Publications

(Items B9-F2 on Question B11, Appendix A)

		B9 (Voc Biogs)	B10 (State briefs Calif. & NJ)	B11 (Prof Assoc.)	B12 (Bus. pamphlets)	B13 (Former students)	B14 (Other)	C1 (Career World)	C2 (Occs. in Demand)	C3 (OOQ)	C4 (Real World)	C5 (Civil Service)	C6 (Other)	D1 (Opport ... VGM)	D2 (Your Career..Messner)	D3 (Your Future..Rosen)	D4 (Other)	E1 (Bus. directories)	E2 (School prep. list)	E3 (Other)	F1 (College Blue Book)	F2 (Lovejoy's Career Voc. Guide or NCES Direct/Post Sec.Schls)
DESCRIPTIVE INFORMATION	DOT code	✓								✓												
	Duties or tasks	✓						✓		✓	✓	✓		✓	✓	✓						
	Special tools, equipm.	✓						✓		✓	✓			✓	✓	✓						
	Related occupations	✓						✓		✓				✓	✓	✓						
	Opportunities for advancement	✓						✓		✓	✓			✓	✓	✓						
	Working conditions (e.g., indoors or outdoors, hours)	✓	VARY	VARY	VARY	VARY		✓		✓	✓			✓		✓			VARY			
	Other (Spec. problems; many details)	✓	Will	Will	Will	Will		✓		✓	✓			✓	✓	✓			Will			
PERSONAL REQUIREMENTS	Temperaments	✓						✓		✓	✓			✓	✓	✓						
	Aptitudes	✓						✓		✓	✓			✓	✓	✓						
	Physical demands	✓						✓		✓	✓			✓	✓	✓						
	Other (more details)													✓	✓	✓						
OTHER REQUIREMENTS	Acceptable Handicaps																					
	(E.g., licensing, union membership)	N						N		N	N	N S		N	N	N						

KEY: N = national R = regional S = state L = local

C = Canada ✓ = geographical distinction not appropriate

g = for groups of occupations

Table 11 (continued)

		B9 (Voc Biogs)	B10 (State Briefs)	B11 (Prof. Assoc. Briefs	B12 (Bus. pamphlets)	B13 (Former students)	B14 (Other)	C1 (Career World)	C2 (Occs in Demand)	C3 (OOQ)	C4 (Real World)	C5 (Civ. Serv Exam Annou)	C6 (Other)	D1 (Opport...VGM)	D2 (Your Career...Messner)	D3 (Your Future...Rosen)	D4 (Other)	E1 (Direct. of Bus & Ind)	E2 (School prep. lists)	E3 (Other)	F1 (College Blue Book)	F2 (Voc Sch Directories) Lovejoy or NCES direct.
ECONOMIC INFORMATION[a]	Number and distribution of workers (current)									N												
	Occupational Outlook Demand	N	S					N	S N L	N	N			N	N	N						
	Supply																					
	Relationship between demand and supply		VARY	VARY	VARY	VARY																
	Conditions affecting outlook	N						N		N	N			N	N	N						
	Opportunities for special groups		will	will	will	will		N		N	N			N	N	N						
	Salary range	N	S					N	N	N	N			N	N	N						
	Starting range		S					N		N	N	N S		N	N	N						
	Average salary							N		N	N			N	N	N						
	Top salary							N		N	N			N	N	N						
	Fringe benefits	N						N		N	N			N	N	N						
	Other																					

KEY: N = national R = regional S = state L = local

✓ = geographical distinction not appropriate C = Canada

[a] Complete economic information is not always available for all occupations.

Table 11(continued)

		B9 (Voc Biogs)	B10 (State briefs)	B11 (Prof. assoc.)	B12 (Bus. briefs)	B13 (former students)	B14 (Other)	C1 (Career World)	C2 (Occs in Demand)	C3 (OOQ)	C4 (Real World)	C5 (Civ. Serv Exam Annou)	C6 (Other)	D1 (Opport...VGM)	D2 (Your Career...Messner)	D3 (Your Future...Rosen)	D4 (Other)	E1 (Direct. of bus & ind.)	E2 (School lists)	E3 (Other)	F1 (Coll.direct (Blue book)	F2 (Voc. school directories)
EDUCATION OR TRAINING	Entry requirements	✓						✓		✓	✓	✓		✓	✓	✓						
	Types of schools providing training	✓						✓		✓	✓			✓	✓	✓					N S L	N S L
	Programs of study at schools	✓	Will vary	Will vary	Will vary	Will vary		✓		✓	✓			✓	✓	✓					N S L	N S L
	Training programs	✓						✓		✓	✓			✓	✓	✓						N S L
	Financial aid							✓			✓											
	Other/on-the-job training(e.g. work experience)	✓						✓			✓			✓	✓	✓						
POTENTIAL SATIS-FACTIONS	Interests	✓						✓		✓	✓			✓	✓	✓						
	Values							✓		✓	✓			✓	✓	✓						
	Other	✓						✓		✓	✓			✓	✓	✓						
EMPLOYMENT	Names of employers					L												N S	L			
	Other information about employers	✓				L								✓	✓	✓						
SOURCES OF FURTHER INFORMATION	Organizations	✓						N		N	N			N	N	N						
	Publications							✓		✓	✓											
	Knowledgeable persons					L													L			
	Other							✓			✓											

Key: N=national R=regional S=state L=local ✓=geographical distinction not appropriate
g=for groups of occupations

Table 12

Information Contents of Computerized Systems--Occupational Realm

		CHOICES, Canada	CIS, Oregon	[illegible]-PROCESS	COCIS	COIN	CVIS, Slip. Rk.	DISCOVER	EUREKA	GIS	MCIS	MOIS, Mass.	MOIS, Mich.	MCIS	OCIS	SIGI	SOICC	UCIS	WOIS
DESCRIPTIVE INFORMATION	DOT code		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	Duties or tasks	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Special tools, equipm.			✓		✓		✓	✓		✓	✓	✓		✓			✓	✓
	Related occupations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	Opportunities for advancement		S L	N	N	N	N	N	N S	N	N		N		N	N	N	N S	S
	Working conditions (e.g., indoors or outdoors, hours)	N	N S L	N	N	N	N	N	N S	N	N	N	N	N S	N	N	N	N S	N S
	Other	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓		✓	✓	✓	✓	
PERSONAL REQUIREMENTS	Temperaments	✓	✓		✓	✓	✓		✓			✓	✓		✓	✓	✓	✓	✓
	Aptitudes	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Physical demands	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Other																		
OTHER REQUIREMENTS	(E.g., licensing, union membership)		N S	N S L	S	N	N	N	N S L	N		N	N	N S	N S	N	N S L	N S	S

TYPE OF INFORMATION: N = national R = regional S = state L = local

0 = local option ✓ = geographical distinction not appropriate

Table 12 (continued)

		CHOICES, Canada	CIS, Oregon	CISI-PROCESS	COCIS	COIN	CVIS, Slip. Rk.	DISCOVER	EUREKA	GIS	MCIS	MOIS, Mass.	MOIS, Mich.	NCIS	OCIS	SICI	SOICC	WCIS	WOIS
ECONOMIC INFORMATION	Number and distribution of workers (current)		N S L	N S	S L	N O		N	S L	S L	S L	S L	N S	S	S L	N	S L	S	S
	Occupational outlook																		
	Demand	N S	N S L	N S	S	N O	N	N	N S	O	S L	S L	N S L		S L	N	S L	S	S
	Supply		S L	S	S				N S	O									
	Relationship between demand and supply		N S L		N S		N		N S	N S O				N S	N	N	N	N S L	S L
	Conditions affecting outlook		S	N S	S	N O		N	N S	O	S	S L				N		S L	S
	Opportunities for special groups		S									S	S			N			
	Salary range					N O												N S	
	Starting salary	S	S L	S	S		N	N	N S L	O		S L	N S L	N S	S L	N	S	N S	S
	Average salary		N S		S		N	N	N S L	O	S L	S L	N S L	N S	N S	N	L		S
	Top salary		S L				N	N	N S L	O			N S L			N			
	Fringe benefits					N			N S L			S L	N S		S	N		S	S L
	Other			N S				N					N S			N			S

TYPE OF INFORMATION: N = national R = regional S = state L = local

O = local option ✓ = geographical distinction not appropriate

Table 12(continued)

		CHOICES, Canada	CIS, Oregon	CISI-PROCESS	COCIS	COIN	CVIS, Slip. Rk.	DISCOVER	EUREKA	GIS	MCIS	MOIS, Mass.	MOIS, Mich.	NCIS	OCIS	SIGI	SOICC	WCIS	WOIS
EDUCATION OR TRAINING	Entry requirements	N	S L	N S	N	N	N	N	S L	N	N	N R	S	N S	N	N	N S L	N S	N
	Types of schools providing training		N S	N	N S	N	N	N	S L	N		N R	S	S	N S	N	N S	N S L	N
	Programs of study at schools		S L	L	S L	N	N	N S	S L	N	S L	N R	S L	S	N S	0	N S L	N S L	S
	Training programs		S L	N S	S L	N			S L	0	N S L	N R	S L	S	S	0	S L	S	S
	Financial aid		N S L	S	N S L			N	S L	N		R	S L	S	N S	0	N L	N S	N
	Other		S	N	S			N	N			N S L			N S				S
POTENTIAL SATISFACTIONS	Interests	✓	✓		✓			✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
	Values							✓								✓			
	Other													✓				✓	✓
EMPLOYMENT	Names of employers				S L	0		0	L	0									
	Other information about employers		S 0	N	N		N	N	S L	0		N		N			S L	N S	S
SOURCES OF FURTHER INFORMATION	Organizations		S L	N S	N S	N		N	N S	N	S L	N S	N S L	N S	N S	N	N S	N S	N
	Publications	N S	N S	N	N	N		N	N S	N	N	N	L	N	N		N	N	N
	Knowledgeable persons		0	0				0	L	0	S L		N S L				S		S L
	Other							N					S L				S		N

TYPE OF INFORMATION: N = national R = regional S = state L = local

0 = local option ✓ = geographical distinction not appropriate

Table 13

Content of Computerized Systems--the Student's Realm

System	Appraisal	Structured Access	Direct Access
CHOICES	Off-line "Travel-Guide" Questionnaire; Canadian Occupational [Interest] Inventory; General Aptitude Test Battery	12 variables, including interests and aptitudes, future outlook, physical activities, etc.	Yes: SPECIFIC 14 topics of information about any occupation. 2 or 3 occupations may be compared.
CIS[a] Oregon CIS* Alaska CIS CIS of Iowa* Career Kokua (Hawaii) Colorado CIS* EUREKA (Calif.)* Georgia CIS Idaho CIS MetroGuide (New York City) Minnesota CIS* Montana Learning Services Nebraska CIS* Washington Occupational Info. Service* Wyoming CIS	QUEST questionnaire + counselors (off-line)	Up to 21 variables	Yes: INFO. Provides information specific to a designated region.
CISI (CIS, Iowa)	QUEST questionnaire--see CIS above	QUEST--see CIS above	Yes: INFO.--see CIS above. Also on microfiche
Colorado CIS	QUEST questionnaire--see CIS above	QUEST--see CIS above	Yes: INFO.--see CIS above
COIN	COIN occupational Profile questionnaire	Many different characteristics	Yes: brief descriptions and detailed information
CVIS	Self-estimate of academic rank and likely level of ed. attainment. User handbook.	Student Script: based on post-secondary plans and interests. Occupational Retrieval: Off-line specifications + Student Script	Work tasks + choice of 6 topics of further information

Table 13(continued)

System	Appraisal	Structured Access	Direct Access
DISCOVER	Weighting of values; Self-Directed Search; Strong-Campbell Interest Inventory; favorite subjects; occupational characteristics.	By values specifications; by Holland's SDC classification; occupational characteristics; favorite high school subjects.	Yes: brief or long occupational description
EUREKA (Calif. CIS)	QUEST questionnaire. See CIS above.	QUEST--see CIS above.	Yes: INFO. See CIS above.
GIS	No. user's choice in accessing	Yes, by the presence or absence of up to 204 occupational characteristics.	Yes: for individual occupations
MCIS	QUEST questionnaire--see CIS above	QUEST--see CIS above.	Yes: DESC + code for a region. PREP yields info about occupations.
MOIS (Mass.)	EXPLORE questionnaire--explores interests. Financial Data Sheet questionnaire off-line	By EXPLORE of FIN SEARCH (financial aid) or PROG (ed. programs). 13 variables in EXPLORE	Yes: by region for occupations and programs
MOIS (Mich.)	MOIS questionnaire or SDS or OVIS scales off-line	MOIS Inventory or SDS or OVIS. Also search of Mich. colleges	Yes: Brief description + longer description of up to 6 categories
NCIS	QUEST questionnaire--see CIS above	QUEST--see above	Yes: DESC for national info., OTHER for Nebraska info.
OCIS	As in GIS--see above	As in GIS--see above	Yes: as in GIS
SIGI	On-line weighting of values; on-line estimate of college performance; on-line estimate of risks of not succeeding in entering an occupation of choice	By minimum specifications of opportunity to satisfy values	Yes: by up to 28 questions for 3 occupations at a time

Table 13(continued)

System	Appraisal	Structured Access	Direct Access
SOICC (formerly Alabama Occupational Information System)	As in GIS--see above	As in GIS--see above	Yes: as in GIS
WCIS	As in GIS--see above	As in GIS--see above	Yes: as in GIS
WOIS	QUEST questionnaire--see CIS; the Career Game; GATB, SDS	Generally as CIS QUEST. Also possible by Career Game of Computerized Career Information System	Yes: INFO. See CIS above

[a] The Career Information System (CIS), first developed in Oregon, is the basis for the 14 state systems listed here. The asterisked systems are treated in Tables 12, 13 and 14 as separate systems, as well as varieties of CIS.

Table 14

Acronyms of Computer Systems

Acronym	Full name
CHOICES	Computerized Heuristic Occupational Information and Career Exploration System
CIS	[Oregon] Career Information System
CISI	Career Information System of Iowa
COCIS	Colorado Career Information System
COIN	Coordinated Occupational Information Network
CVIS	Computerized Vocational Information System
DISCOVER	(Not an acronym)
EUREKA	(Not an acronym. It is the California Career Information System.)
GIS	Guidance Information System
MCIS	Minnesota Career Information System
MOIS[a]	(Massachusetts/Michigan) Occupational Information System
NCIS	Nebraska Career Information System
OCIS	Ohio Career Information System
SIGI	System of Interactive Guidance and Information
SOICC	State Occupational Information Coordinating Committee
WCIS	Wisconsin Career Information System
WOIS	Washington Occupational Information System

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[a] There are two systems that use this acronym, one in Massachusetts, the other in Michigan.

Table 15

Content of Three VIEW Systems--Occupational Realm

		Oklahoma	Florida	Missouri
Descriptive Information	DOT code	✓	✓	✓
	Duties or tasks	✓	✓	✓
	Special tools, equipment	✓	✓	✓
	Related occupations	✓	✓	✓
	Opportunities for advance		N	N, S, L
	Working conditions (e.g., indoors, hrs.)	N	N	N, S, L
	Other			✓
Personal Requirements	Temperaments			
	Aptitudes	✓	✓	✓
	Physical demands	✓	✓	✓
	Other	N		N, S, L
	Other requirements (e.g., licensing)	S	S	N, S, L
Economic Information	Number and distribution of workers	S		L
	Occupational outlook			
	Demand	S, L	S	N, S, L
	Supply	S		
	Relationship, demand/supply		S	
	Conditions affecting outlook		S	N, S, L
	Opportunities for special groups			N
	Salary range			
	Starting salary	S	S	S, L
	Average salary	S	S	S, L
	Top salary		S	S, L
	Fringe benefits	N	N	N, S
	Other	S		
Education or Training	Entry requirements	S	N	N, S, L
	Types of schools for training	S	N, S	N, S, L
	Programs of study at schools	S	S	S, L
	Training programs	S	S	S, L
	Financial aid		S	S, L
	Other	N		S, L
Potential Satisfactions	Interests		✓	✓
	Values			
	Other		✓	✓
Employment	Names of employers		S, L	
	Other info. about employers	N	S	N, S

Table 15 (continued)

		Oklahoma	Florida	Missouri
Sources of Information	Organizations	N, S	N	N, S, L
	Publications			N, S, L
	Knowledgeable persons	S	L	S, L
	Other			

Type of information: N=National
R=Regional
S=State
L=Local
O=Local option
✓=Geographical distinction not appropriate

CHAPTER III

RESEARCH QUESTION A2

Research question a2 is, "What is the quality of the information contained in these resources?" Two common meanings of quality are relevant. One is descriptive, referring to the essential nature, attributes, and characteristics of an entity. The other is evaluative, referring to some standards of excellence by which an entity is judged. A rush to judgment that ignores the many descriptive dimensions along which entities (resources) vary--especially the differentiated purposes and functions they serve--makes for simplistic, subjective, and frequently superficial standards for preparing and evaluating resources. Where do such standards come from?

To answer this question at a pragmatic level, they tend to come from committees. For example, committees under the aegis of the National Vocational Guidance Association published "guidelines" for career information "literature" and "media" (National Vocational Guidance Association, 1972). Standards for computer-based career information systems and for statewide career information delivery systems, respectively, have been published more recently (Association of Computer-Based Systems for Career Information, 1979, and National Occupational Information Coordinating Committee, 1980). Other citations appear in the Review of the Literature (Shatkin, Weber, & Chapman, 1980). All these published standards and guidelines are largely expanded checklists for content and procedures. Although prescriptive, they tend to appear innocuous in that they seldom lead to sharp differentiation between resources in either descriptive or evaluative terms.

For example, they all mention "abilities" required for occupations. As Tables 10, 11, 12, and 15 in Chapter 2 show, virtually all resources can be checked off on this "standard." But the domain of abilities can be defined and assessed in various ways; so can occupational requirements; and the linkages between abilities and requirements can be established and treated in diverse methods from one resource to another. These differences cry for description and critical analysis before we can judge whether the information in a given resource about abilities required for occupations is accurate and useful or mistaken and misleading. Thus, we seek to probe beneath the surface of compliance with such "standards," to examine the bases for statements about ability requirements in various resources, and to venture some carefully supported judgments about them.

To illustrate further, all published standards and guidelines say that information such as data on wages and salaries should be "accurate" and "current." This is a pious prescription. But what do accuracy and currency mean in operational terms? How should a resource handle the availability of more recent data about one occupation than about another? We shall attempt to describe and evaluate specific procedures for accomplishing the goals of accuracy and currency.

Description, Classification, and Evaluation

Since even much-maligned committees engage in rational processes, we must also try to answer the question at a conceptual level: standards can emerge from inductive or deductive reasoning. The former starts with observations of existing practices. These observations often take the form of comparisons. Before information resources are compared, it is necessary first to establish that comparisons are appropriate.

It is commonplace to say that apples should not be compared with oranges. Perhaps a more useful statement is that neither apples nor oranges should be arbitrarily designated as generally superior to the other. Yet certainly they can be described, classified, and compared along many relevant dimensions--e.g., calories, amount of vitamin C, water content, and so on. Then, depending on the purpose of the comparison, an evaluation in respect to that purpose is not inappropriate (e.g., oranges as a better source of vitamin C). In short, evaluation can not properly be segregated from description and classification, and indeed depends on it.

In a similar way, one source of occupational information (say, the Occupational Outlook Handbook) is more extensive than another (say, a site visit), but the latter is more vivid and intensive. One source may be more objective than another, or more current, or less expensive, and so forth. These comparisons thus lead us to induce a set of criteria and standards from a present body of practice: the scope of one source, the detail of another, the currency of a third, and so on. Each resource can then be judged on each criterion in terms of standards representing the state of the art. But then we are accepting standards within the limitations of existing resources. It is possible to go a step further: Using the dimensions inferred from such comparisons, we can set ideal (criterion-referenced) rather than observed (norm-referenced) standards. Then we can judge how close each resource comes to this ideal standard.

This still limits us, however, to dimensions derived from observations of existing resources. But often the set of practices that might be most effective and might therefore be of highest quality does not exist in any actual resource. Nevertheless, the dimensions and criteria for ideal programs or resources can be conceptualized even though they can not be observed. Such idealized conceptualizations are formulated deductively. A prescriptive approach to standards combining induction and deduction should, then, include criteria based on actual resources and also criteria derived from ideal resources that might be constructed (perhaps innovations still being developed) but do not presently exist in schools.

It would be presumptuous, however, to use a survey of the present sort as a platform for prescription. What is found in this study may, at most, help to clear the ground for policy decisions. It may identify and define dimensions along which resources can be examined and compared; it may sensitize policymakers to relevant issues, perhaps alter their perceptions of quality, help them reconcile divergent views, and prepare them for the decisions they will have to make. It will not tell them what to do.

In short, evaluative standards for judging quality depend on descriptive dimensions. Such dimensions are, in part, parsimonious ways of summarizing and organizing observations. They provide a preliminary structure for a classification system, or taxonomy. Taxonomies have contributed to understanding in such diverse fields as (to name only a few) astronomy, library science, biology, and sexual behavior. They have been used to identify entities or phenomena and to tabulate frequencies--they give discrete items a name and place them in relation to one another. Much of what we "know" comes from such taxonomies: they transform our perceptions into concepts.

Conversely, we can scarcely register or take cognizance of a perception without some prior conceptual frame of reference. Then a continuing process of confirmatory observations leads to support or revision of our rudimentary concepts. Through this iterative process of observation and thought, we progress from ad hoc, preliminary, tentative designations to more formal, explicit, and tested classification systems.

A classification system is useful for evaluating quality to the extent that it helps to differentiate between various resources and leads to critical analyses that provide new insights. We will try building such a classification model, give it a spin, and see how it runs according to these criteria.

A Preliminary Frame of Reference

In this study, the school questionnaire embodied a moderately primitive classification system of occupational information resources. It was based on superficial similarities and differences that would be readily recognized by respondents. Thus question 11 asked about the availability in each school of specifically designated or titled publications (subdivided into bound references, occupational briefs and kits, periodicals, books, lists, and directories); computerized information systems; audiovisual materials; microforms; noncomputerized sorting materials; school-arranged experiences; simulations; and personal contacts with staff. This array consisted, in all, of 71 items that might be circled in various combinations to represent the resources present in a school. A simplifying procedure was used to reduce the enormous number of possible combinations into types representing the most frequently occurring combinations. Thus frequency of joint occurrence has been used as one taxonomic approach in answering the question, "What types of schools have what types and quality of career information resources?" These data are reported in Chapter IV and will not be repeated here.

This enumeration of joint occurrences is purely empirical, quantitative, and inductive. Resources that go together are not necessarily similar. On the contrary, they might logically be expected to be complementary. It is also superficial in its categorization of occupational information resources by apparent medium or delivery system. For example, all computerized career information delivery systems (CCIDS) are grouped together, without regard for the fact that there are often great differences between such systems. Some of these differences are described and discussed extensively in companion pieces to this report (Katz & Shatkin, 1980, and Shatkin, 1980).

The former publication defines, examines, and illustrates the following dimensions along which CCIDS vary: (1) scope, (2) content, (3) structure, (4) style, (5) procedures, (6) costs, (7) effects, and (8) underlying rationale or model. The latter publication describes 18 currently operating CCIDS on scope and content, structure, and procedures--topics on which comprehensive information could be gathered from first-hand use of the systems, published materials, and questionnaires completed by the developers. Obviously, the eight dimensions listed above could be applied to many other media or delivery systems of information. Brief definitions of these dimensions may, therefore, be useful for qualitative descriptions and comparisons of resources. Then, without repeating the systematic descriptions and evaluations of various resources that appear in another companion publication (Review of the Literature--Shatkin, Weber, & Chapman, 1980) and in Chapter II on Research Question a1, comments will be made about selected resources, particularly in light of data from the questionnaires. Finally, an attempt will be made to evaluate resources in qualitative terms.

1. Scope

Scope includes the functions of a resource and the purposes for which it may be used. How does it fit into a comprehensive program of career guidance? To what extent does it purport to deal with appraisal of the client? Information about educational and occupational options? Evaluation of options, or strategies for decision-making? Planning for appropriate action to implement decisions? And what is the relative extensiveness of each of these components? Is it primarily for exploratory purposes or crystallization and specification of choice? To what extent is a resource intended for use by each of different populations (e.g., poor readers), and in each of different settings (e.g., in secondary schools, colleges, CETA centers, prisons, libraries, and so on)?

Few could dispute that a comprehensive program of career guidance should be broad in scope. No single resource of information, however, can be counted on to accomplish all things for all persons. Thus it is appropriate to consider how each component may fit into the total mix. While resources can readily be described and compared in scope, evaluation of any given resource on this criterion must logically be linked to the purpose for which it was prepared and/or for which it is likely to be used. This is not a severely limiting constraint, since there is considerable redundancy of purposes across resources.

Questionnaire data on purposes. Several items on the questionnaires addressed the subject of the purposes for which various resources are used. Question 13 of the School Questionnaire asked, "Of all the resources you circled in Question 11 [available AT YOUR SCHOOL], which would you be most likely to use for each of the PURPOSES listed below?" For each of the seven items that followed, the ten most frequently occurring responses appear in Tables 16-22 below. They are listed in rank order of frequency in the columns headed "National Estimate." These percentages indicate preference for each resource nationally.

It must be emphasized, however, that this column by itself might be misleading, since the resources vary greatly in frequency of availability in secondary schools. For example, it will be recalled that the ubiquitous OOH is available at 92 percent of secondary schools nationally, whereas a state computer-based information system is available at only 12 percent of the schools. Therefore, another column has been placed adjacent to "National Estimate." This column at the extreme right of each table is headed "Percent Based on Schools with Resource." It provides an index of the frequency with which each resource is chosen for a given purpose when that resource is present. No attempt is made to convert these percentages into national estimates: they represent simply an answer to the question, What proportion of the respondents (summed across all three strata) who had a given resource said they would use it for the stated purpose?

Thus as can be seen in Table 16 for item a, "Arousing students' interest in exploring occupational information generally," the OOH would be used most frequently according to the national estimate, in about 12 percent of the schools nationally. But in those schools that had a state computer system (amounting to only 12 percent of the nation's schools), about 44 percent of the respondents would use that system for this purpose. This perception of computer systems is corroborated by preference for use of GIS* in about 38 percent of the schools that had it available. (State systems and the GIS were the only computer systems in enough schools to show up in these tables.) Since the OOH was available in 97.5 percent of the schools that had computer-based systems, it seems clear that in those schools computer-based systems were seen as more useful than the OOH for arousing students' interest in exploring occupational information generally. All other resources--such as microfilms, courses, career days, audiovisual materials, and so on down the list in Table 16--are seen as useful for this purpose with much lower relative frequencies even in the schools in which they are available. Since courses, career days, and occupational units are often said to be offered largely to accomplish this purpose, it is noteworthy that they were chosen with such relative infrequency. Evidently, career guidance staffs had little confidence in their efficacy.

Respondents with computer systems may have felt that the technology itself had a special appeal for students, who would tend to be attracted to exploration of occupational information through its association with this equipment. Or perhaps the computer's powerful capabilities for structured access to occupational information were seen as a particularly good way of capturing students' interest in many occupations they might not otherwise have considered investigating.

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*There may be some overlap between Guidance Information System (GIS) and "Your state system." GIS contains national files, and users may also contract to add state/local files. Some schools using GIS as a statewide CCIDS may have referred to it as GIS, and others as their "state system." We know, however, that a majority of the "state system" responses referred to a state variant of the Oregon-based Career Information System (CIS). Further distinction is not crucial, since it would rarely have any meaningful impact on interpretation of the tables.

Certainly, one caution must be observed in interpreting the findings in this set of tables. The very fact that a school has chosen to adopt a computer system (or some other resource) may predispose the respondent to prefer using it for a given purpose. The *OOH* is almost universally available, and obtaining it requires very little effort or commitment on the part of school staff. Other resources, to the extent that they involve special effort, cost, interest, or commitment on the part of school staff, may tend to be favored for various purposes through the same process of selection that led to their being adopted. We must be alert to a possible halo effect. It is important, then, to note, for any given purpose, differentiations between various resources that are not too easily come by, and also to note differentiations between purposes for which any given resource tends to be chosen with greater or lesser frequency. Thus externally produced audiovisual materials (which involve cost and effort) are preferred for the purpose of "arousing students' interest..." in only 7.5 percent of the schools that had such materials available--less than a fifth of the relative frequency with which computer systems were chosen when they were available. But for item e, "Enabling poor readers to get information about occupations," audiovisual materials are chosen with about the same relative frequency as computer systems in schools where these resources are respectively available: 24 percent for state computer systems, 22 percent for AV materials, and 20 percent for GIS (Table 20).

The *OOH* clearly stands out as the most favored response to item b, "Familiarizing students with many occupations," in relative as well as absolute frequency. As indicated in Table 17, it would be used for this purpose at about 26 percent of the schools having copies. Its closest competitor is the *DOT*, which would be used at 10.5 percent of the schools that had it. The latter, of course, contains more occupational titles and definitions than any other source but was evidently not seen to be as usable as the *OOH*.

For item c, "Giving students detailed information about an occupation with which they are already familiar," respondents who had computer systems tended to favor them: about 38 percent for state computer systems and 31 percent for GIS (Table 18). The closest rivals in relative frequencies were the *OOH* (about 19 percent), Chronicle Guidance briefs/library (about 16 percent), and state or regional microfilm/microfiche, such as VIEW (about 13 percent). The strong showing of the computer systems here is a little surprising: information in these systems tends to be concise. Perhaps the presence of state information accounts for it and also for the choice of microfiche. The Chronicle briefs generally contain more detail on "Work Performed" for a given occupation than do the *OOH* briefs, although the total length of each brief is very similar. Chronicle and SRA briefs were in a similar number of schools (about 47 percent and 41 percent, respectively) and appear to be quite similar in purpose; it is interesting to note, then, that respondents who had SRA briefs chose them for this item with a frequency of about 7 percent--less than half the relative frequency with which Chronicle briefs were chosen. The Encyclopedia of Careers and Vocational Guidance was also available in a similar number of schools (about 46 percent) and was chosen with relative frequency almost the same as the SRA briefs (about 7 percent). Pamphlets of professional associations were present in 53 percent of the schools nationally; of the schools that had them, only 4 percent chose them for this purpose. These pamphlets often contain much more detail than the other resources mentioned above, but are very uneven, with great variation from one occupation to another. Books on individual occupations might have been expected to show up with some considerable relative frequency as a response to this item; perhaps they were neglected because the number of occupations covered in them is comparatively small. Or perhaps respondents felt that students would be unwilling to undertake so much reading. It is also noteworthy that audiovisual materials, although present in 71 percent of the schools nationally, were almost never chosen for this purpose.

On the face of it, the structured access capabilities of computer systems would seem uniquely endowed to meet the purpose of item d, "Suggesting previously unfamiliar occupations for a student to consider." Indeed, they were by far the most favored response in schools that had them--about 31 percent for state systems and 30 percent for GIS (See Table 19). Yet one wonders why the percentages in those schools were not even higher. Again, the OOH figured significantly in the responses, chosen by 19 percent of those who had it. It is not clear how this publication and the others mentioned would be used for this purpose. What is perhaps a more logical resource, conferences with counselors, although widely available (83 percent of the schools nationally), was chosen in only 4 percent of the cases. School courses in career planning and occupational information units in subject matter classes, also widely available (in 40 percent and 62 percent of the schools, respectively), are often designed for this purpose; they were, however, seldom chosen.

For item e, "Enabling poor readers to get information about occupations," one would expect audiovisual materials to be popular, and they are: in about 22 percent of the schools having such materials, they would be chosen for this purpose (Table 20). But this relative frequency is no greater than that which appears for the computer systems in schools where they are available: about 24 percent for the state computer systems and 21 percent for GIS. Apparently, the reading level of the computer systems is regarded as easier than the OOH (chosen by only about 4 percent of the schools). State microfiche, Careers Inc. briefs, SRA briefs, and Career World were also evidently regarded by those who had them as somewhat more useful than the OOH for poor readers. Of resources (besides audiovisual materials) that would not seem to entail reading, career days and speakers were named by about 6 percent of those who had them, conferences with counselors were named by only about 4 percent of the respondents, and the remainder (such as school courses, exploratory work experience, site tours, simulations, and other opportunities for direct observation or experience) were seldom chosen. Thus even for poor readers, there appears to be considerable dependence on resources that require reading, except for audiovisual materials. Perhaps the latter are more easily managed and controlled than the other observational and experiential resources.

For item f, "Helping college-bound students select colleges with programs suitable for their occupational plans," the response frequencies seem quite reasonable. College directories arranged by occupation were available in 70 percent of the schools nationally, and would be chosen for this purpose by about 58 percent of the respondents who had them (Table 21). The computer systems rank next in relative frequency (about 52 percent for GIS and 30 percent for state systems). Other educational directories for occupations were chosen in about 29 percent of the schools that had them. One might wonder about the relatively high preferences for the computer systems for this purpose. The state systems generally do not include national data bases for colleges. Thus respondents who chose them appear to be assuming that the college selection would be limited to intrastate institutions. Although GIS has a national college data base, it--like the state systems--would require a two-stage operation: first deriving major fields from the occupational data base and then searching for colleges with those major fields. The directories cited provide easy one-step access to lists of colleges directly by occupation.

Item g, "Helping noncollege-bound students select schools or training programs suitable for their occupational plans," is analogous to the preceding item and so are the responses (Table 22). Vocational school directories would be chosen by about half of those who have them. About 32 percent of the respondents with computer systems chose them for this purpose. About 27 percent of those with other educational directories would select them. Conferences with counselors were chosen in about 7 percent of the schools. A job training directory, which would appear to be suitable for this purpose, was present in only about 4 percent of the schools nationally, and was chosen by only one school in the entire sample.

Unserved purposes. Finally, in connection with this question of perceived purposes served by various resources, it is interesting to note the perception of gaps. Pooling the "Not Applicable," "Don't Know," and "No Response" frequencies in the national estimates gives the following (rounded) percentages for items a through g, respectively: 14, 11, 14, 16, 28, 17, and 18. The highest frequency, 28 percent, is for e, "Enabling poor readers to get information about occupations." That is, in over a quarter of the schools nationally respondents were at a loss to designate any resource available in their school for this purpose. Some may interpret this finding to mean that more attention must be paid to developing and disseminating resources for poor readers. Others may say it underlines one more time in one more context the pervasive importance of reading for education and the need to give maximum attention to the improvement of reading. The two interpretations are not, of course, mutually exclusive.

These questionnaire items do not pretend to exhaust the possible purposes of occupational information resources. The items do, however, sample a considerable variety of purposes, enough to determine which resources tend to go together or to be differentiated in respondents' perceptions of purposes for which they might be most useful. This analysis is limited, of course, to the practitioners' views (most of the respondents, it will be recalled, were guidance counselors). Theirs are not the only perceptions of relevance. Other points of view will appear in analyses of responses to the student questionnaire. Expert opinion has been cited in the review of the literature, and the perceptions of the investigators for this study are not suppressed in the body of this report. Here, however, the focus is on practitioners.

Their views are particularly important because they are the local "experts" in each school on resources of career information. As they indicate elsewhere in responding to the School Questionnaire (Question 4, see Table 49, Chapter V), they direct students to occupational information. Furthermore, the practitioners claim that their referrals are the most effective method of getting students to use occupational information (Question 2, Table 82, Chapter X).

2. Content of Occupational Information Resources

Information resources that purport to cover material of similar scope and purpose may yet vary in content. For example, they may involve somewhat different arrays of occupations and emphasize different topics. Work activities, requirements, environments, rewards, and satisfactions may be described from different points of view, utilizing different dimensions. Thus some sources may describe activities in terms of level of skill in working with data, people, and things, while other sources use a dozen or more categories. Others may emphasize in detail the materials and tools used on the job. Still others may focus on the products of the activities, and so on. Even when there is agreement on use of a descriptive category, different definitions or methods of observation or measurement may give different results. For example, wage and salary data may be translated into "most commonly occurring salary," or "average salary," or "salary range," or "beginning, median, top, and variation" for each occupation; such data may be based on national, regional, state, or local surveys of occupations, or interpolated from surveys of industries; they may be gathered from studies more than two years old, and reported with a date, or may be projected and reported up to a more recent year by adding inflation factors. Different rubrics may be used to represent the domain of satisfactions associated with occupations; even when similar rubrics are used, definitions and scales may vary from one resource to another. Some differences in content have been described across many resources in the preceding section and are summarized in Tables 10 through 15, and more detailed analyses have been reported for computerized guidance systems by Katz and Shatkin (1980) and Shatkin (1980). At this point, it is appropriate to note how the content of various resources has been perceived and differentiated by secondary school practitioners in seeking information on a relevant sample of topics.

Questionnaire data on variations in content. Question 12 attempts to get at respondents' perceptions of variations in the nature and quality of informational content in the array of resources. It asks them to designate which resource (of those indicated as available in question 11) "...would YOU be most likely to use to get ANSWERS TO QUESTIONS about each of the topics listed below?" Tables 23 through 32 again show the ten most frequently designated resources in rank order according to national estimates, with national percentages in one column and, in the final column, percent of respondents choosing a resource in those schools where it was available.

For item a, "Education, training, licensing and certification requirements for entry into various occupations," the OOH is the most frequent choice, selected by about 43 percent of the schools that had it (Table 23). The state computer system and GIS follow, with relative frequencies of about 36 percent and 28 percent, respectively. State microfiche (such as VIEW) was chosen by about 14 percent of the respondents who had it available. The DOT does not provide much information on this topic, but was chosen at about 8 percent of the schools that had it.

The OOH was again the leading resource for item b, "Employment outlook in various occupations over the next 5 to 10 years," being chosen at about 60 percent of the schools that had it (Table 24). Again, the computer systems came next (32 percent for state, 24 percent for GIS). They were followed by two Department of Labor periodicals, Occupations in Demand (about 14 percent) and Occupational Outlook Quarterly (11 percent). The former is a somewhat unexpected choice, since it provides information about current job openings rather than outlook over a 5- to 10-year range. Perhaps these respondents are skeptical of the value of projections of outlook and prefer to use current openings as the best basis for projections. Presumably, they would regard as pessimistic the 5- to 10-year outlook for any occupation not currently "in demand."

To get answers to questions about item c, "Special aptitude, ability or skill requirements for various occupations," respondents who had computer systems would tend to use them (about 36 percent for state systems and 30 percent for GIS). (See Table 25.) About 27 percent of those who had the OOH would choose it for this topic. State microfiche came next (about 16 percent), and a number of publications were also mentioned with sufficient frequency to fill out the "top ten."

The configuration of responses to item d, "Description of work activities in various occupations," is quite similar to that of the previous item. They are shown in Table 26. Again, the computer systems and OOH occupy the first three positions in relative frequency, followed by much the same set of publications and the state microfiche; however, Vocational Biographies replaces occupational briefs published by the state. The *DOT* (chosen by about 13 percent of those who had it) seems to be a more reasonable choice for this item than for items a and c above.

Table 27 shows a similar pattern of responses for item e, "The work environments in various occupations." The *OOH* and computer systems are grouped in the van, followed by pretty much the same set of resources as before. The *DOT* appears with a lower frequency here, however, and audiovisual materials are mentioned often enough to get into the top ten. It seems surprising that first-hand observation and experiential activities fail to appear. Perhaps, like books on specific occupations, these were not regarded as good resources for learning about environments in a large enough number of occupations.

For information about item f, "The security and job tenure of various occupations," Table 28 shows that about a third of those who had the *OOH* would look there, compared to about a fifth of those who had state computer systems. Interestingly, GIS was not mentioned frequently enough to be included in this table. This omission seems reasonable in that GIS provides no information on this topic; but neither, for that matter, do the state systems. Even in the *OOH* the information on security and job tenure is spotty, appearing occasionally in incidental comments on outlook or work description. Thus it is not at all surprising that about 31 percent (national estimate) could not name any resource for this item (sum of "Not applicable," "Don't Know," and "No response"). Respondents had not perceived a gap of this magnitude in any of the previous items for this question: the comparable percentages for items a through e were 13, 12, 15, 12, and 16. For item f, then, the null response is noteworthy both for its accuracy and for its popularity.

Responses and nonresponses to item g, "Opportunities for helping others in various occupations," again suggest a significant gap in information resources. As indicated in Table 29, about 29 percent of those who had GIS would use it for this topic; about 18 percent of those who had a state computer system would use it, and about 16 percent of those who had the *OOH* would turn to it for information on this topic. But about 41 percent (national estimate) were unable to cite any resource with information relevant to this topic.

An anomaly appears in responses to item h, "Accessibility of various occupations to the handicapped" (Table 30). The number of respondents choosing the publication, *Employment Opportunities for the Handicapped*, was greater than the number who said they had it. It appears that some who did not have this resource recognized its face-relevance and named this resource rather than give a null response. About 14 percent of those who said they had "Other school-arranged experiences" indicated they would turn to such arrangements for information about accessibility of occupations to the handicapped. But a majority of all respondents (about 58 percent) did not name any available resource for such information.

For item i, "The most up-to-date local wage and salary information," national estimates show a considerable dispersion of favored resources. Over half of those who had state computer systems would use them as a source of such data, and 34 percent of those with "other periodicals" would turn to them (Table 31). About a quarter of the respondents with state microfiche (such as VIEW) would use it. About 23 percent of the GIS schools would use GIS (not all schools with GIS have state or local data files). About 18 percent of those with access to Occupations in Demand would use it (although it presents wage and salary data in very wide ranges for each occupation). About 17 percent of those with occupational briefs published by the state would use them. Presumably the 11 percent who would use the OOH assume that national information, with occasional regional comments, is as close as they can get. About 40 percent of the schools (national estimate) had named "Conferences with community representatives" as a resource; it is noteworthy that only about 9 percent of the respondents who had listed that as a resource in question 11 named it here as a source of local salary data. This is a percentage that many would like to see increased. No resource at all was named by 27 percent of the schools (national estimate).

For item j, "Occupations which meet or exceed students' multiple specifications...," the computer systems (which are designed for structured access) were chosen by nearly half (49 percent and 46 percent) of those who had them (Table 32). It is a bit surprising that their relative frequency was not even higher. About 19 percent of the respondents who had the OOH would use it. Only about 12 percent of those who had a keysort or needlesort (also designed specifically to retrieve lists of occupations based on multiple specifications) would use it. About 35 percent (national estimate) did not name a resource to be used to get such information.

Perhaps the most striking finding from this question is the number and nature of topics on which no resources were perceived as available. We know that some of these topics are important to students in making career decisions--that is, many students tend to assign high weights to such considerations as security and job tenure and opportunities to help others. (Norris & Katz, 1970; Chapman, Katz, Norris, & Pears, 1977; Norris, Katz, & Chapman, 1978; Katz, Norris, & Pears, 1976; Katz, Norris, & Pears, 1978.) And it is obvious that information about accessibility of occupations is of crucial importance to the handicapped.

Questionnaire data on value of resources. Question 14 attempted to get at respondents' global evaluations of resources: "Which two resources currently available in your school do you rate as most valuable overall?" First choice went most frequently to the OOH in the national estimate (Table 33). Relative frequencies based on the number of respondents who had a given resource in their school showed the computer systems to be most favored (by about half the respondents who had them), followed by the OOH (about 36 percent), state microfiche (about 15 percent), and Chronicle (12 percent).

Question 15 asked respondents to name the two resources they would add at their school if budget permitted. Responses were widely dispersed, as shown in Table 34 for the first-choice responses. Responses differed within the three strata, and the findings are therefore rendered by stratum. The percentages are small whether computed as the percentage of schools in the entire stratum or the percentage of schools that do not have the chosen resource. Computer systems clearly tend to be favored as first choice over any other category of resource, appearing three times among the "top 10" in Stratum 1, and four times in each of the other two strata. Moreover, CVIS was at the top of the list of Stratum 1 and GIS for Stratum 3. The only resources that are among the top 10 in all three strata are CVIS and GIS among the computer systems, and state microfilm and courses in career planning. About 15 percent (national estimate) did not name any resource as first choice.

This null response increases to about 22 percent for the second choice. (Second-choice responses were not tabulated.) Again, frequencies for any resource were low, and again computer systems tended to be favored: About 5 percent named CVIS, and 3 percent each named COIN and GIS. Employment Opportunities for the Handicapped and school courses in career planning were each selected by 3 percent. About 3 percent also named Occupations in Demand.

Considering the relatively low cost of Employment Opportunities for the Handicapped and the fact that Occupations in Demand is free, one must wonder why those who value them highly would not have already added them to their school's resources.

3. Structure of Occupational Information

Structure refers to the way in which information is organized and accessed. "Students seeking guidance often don't know what information they need, don't have what information they want, or can't use what information they have" (Katz, 1963, p. 25). The structure of any resource can often cue students on the kind of information to look for, can help them find what they want or need, and can help them link information about occupations to information about themselves. In short, structure helps make information useful for decisions.

Fixed and flexible clustering systems. The previous section of this report emphasizes the structured access found in computer systems, as described in the two separate publications on Computer-Assisted Guidance. This is not to imply that publications (and other resources) are unstructured. The main distinction is flexibility: Publications, by their fixed linear nature, permit occupations to be clustered according to a single characteristic or fixed set of characteristics. Topics likewise follow a fixed sequence. In computer systems (or keysorts or needlesorts), occupations can be clustered according to any specifications chosen by the user (from whatever dimensions are incorporated in the system). Thus a given occupation is not destined always to be associated with a certain array of other occupations; it can move from one group or cluster to another, depending on the specifications for search. Similarly, in a computer system, topics can be addressed in a more flexible sequence by asking specific questions of the data base and reading a pertinent display.

Much ado has been made of use of one or another classification system for clustering "related" occupations. It is important to note here that there is no single "best" system for all purposes.

Comprehensive occupational clustering and classification systems were developed mainly as a framework for extensive programs of data collection, storage, and publication.

Most of these systems were not designed to differentiate occupations in ways that are useful for making career decisions. Listing some of these major occupational classification systems and their publishers suggests that they serve a variety of purposes of federal agencies, such as the Census (U. S. Bureau of the Census, 1970), the Standard Industrial Classification (Executive Office of the President, Office of Management and Budget, 1972), the Office of Education (U. S. Department of HEW, 1971), and the Dictionary of Occupational Titles nine-digit code (U. S. Department of Labor, 1977). In addition, the Standard Occupational Classification (U. S. Department of Commerce, 1977), which took ten years to develop, was supposed to replace census categories and all other systems used by federal agencies to gather data. Thus although the various sytems were not designed to be compatible, attempts have been made to cross-reference them: each Standard Occupational Classification group includes a listing of DOT titles. It has also been recognized that, even though the systems are in general not directly useful in career decision making, the data (particularly as published in statistical series such as the census) often are: hence such developments as a census/DOT cross-reference tape (Temme, 1975). Nevertheless, the basic problem has persisted: The domain of occupational information represented by such systems is not isomorphic with the domain of individual differences defined and measured through psychological research.

Linking occupational to individual attributes. A new Department of Labor publication, Guide for Occupational Exploration (GOE), has been developed that purports to mediate between these two domains (U. S. Department of Labor, 1979). The recency of this publication no doubt accounted for the fact that it was reported as available at only about 11 percent of the schools (national estimate). Nevertheless, in view of its novel structure and the likelihood of more extensive use in the future, it warrants particular attention.

First, it should be pointed out that items used in interest inventories are generally very open and straightforward (e.g., calling for responses of Like, Indifferent, or Dislike to a list of occupational titles). Therefore interest measures do not differ so much in the nature of their items as in their conceptual structure--the definition of the domain and of the dimensions that comprise it. Thus, given definitions of the dimensions, individuals' self-ratings on those dimensions are generally as useful as summations of much more tedious responses to long arrays of inventory items. A student is either knowledgeable about an item or ignorant of it. If a student knows enough about items that comprise a scale to answer sensibly, the items are probably unnecessary. If a student does not know enough, the item responses are probably invalid. So what is important about interest measures is their structure.

The *GOE* partitions the universe of 20,000 occupations first into 12 "interest areas," then divides them into 66 groups based on "capabilities and adaptabilities," and further classifies them into 348 subgroups determined by a mix of criteria (such as materials and products involved, or hand work versus machines). The simplifying notion is that the user can start with interests (measured by an inventory or checklist with scales presumed to represent the same 12 areas), then narrow consideration down successively to smaller groupings or "families" of occupations on the basis of other traits and characteristics embodied in the classification and associated measurement systems.

Unfortunately, the *GOE* assigns each occupation to only one "interest area." Therefore an occupation that involves activities appealing to two or more kinds of interests is not retrieved from each area. For example, engineering occupations, including research engineers, appear in the Mechanical but not in the Scientific area. Furthermore, the sequential procedure prevents occupations from different "interest areas" (as defined by the *GOE*) from being considered in the same cluster. Yet occupations from different interest fields can resemble one another in a variety of other characteristics which may indeed be more important for some decision-makers than interest areas (Chapman, Katz, Norris, & Pears, 1977; Norris, Katz, & Chapman, 1978; Tittle, 1979). This rigid, hierarchic structure of the *GOE* illustrates the constraints imposed on publications by their very nature, as compared with computer-based systems that can screen occupations simultaneously on a number of variables selected flexibly according to their importance to the individual decision-maker. *A flexible multivariate system permits a user to slice through the universe of occupations in many planes*.

Mention of alternative clustering procedures raises the question (close to the heart of occupational choice) of what constitutes an occupation, along with the closely related question, in what respects can occupations be classified as similar or different?

People who hold the same occupational title often have varying opportunities to shape their own work. There is evidently more elasticity in some occupations than in others. For example, in some occupations there is a tendency toward "budding," the creation of new occupations. Occupations are not so stable over time as are biological species. Thus Psychologist has proliferated (in the Fourth Edition of the *DOT*) into nine defined titles and Crown Pouncer into three. It is noteworthy that the Psychologist titles in the *GOE* (U. S. Department of Labor, 1979) are split between the area designated Humanitarian (for Clinical, Counseling, and School Psychologists) and the one labeled Leading-Influencing (for Comparative-Experimental-Physiological, Developmental, Educational, Engineering, Industrial-Organizational-Personnel, and Social Psychologists).

The rubrics for the "interest areas" highlight some of the questions raised by the peculiar way in which the interest domain has been defined in the *GOE*. Many of the labels seem to pertain to the *object* of activities (e.g., Plants and Animals), to the *purpose* of activities (e.g., Protective, Humanitarian), and to the *setting* of activities (e.g., Industrial) rather than to distinctions that might reside in the nature of the activities themselves. This problem is illustrated by the definition of the interest factor called Leading-Influencing: "Interest in leading and influencing others through activities involving high-level verbal or numerical abilities." Logically and semantically, this definition seems to identify two kinds of activity interests, one verbal and the other numerical. These might be applied to a variety of purposes--protective, humanitarian, and leading-influencing presumably being among them. Although this is not the place to examine critically the procedures by which the interest domain was defined and the factors identified, suffice it to say that they do not seem sound enough to warrant use as a primary basis for partitioning the universe of occupations.

The problem of sharply defining domains and dimensions is not confined to publications. It was suggested earlier that the domains of individual differences are not isomorphic with the domains of occupational information. This point warrants some clarification. For example, the term *interests* is often used loosely (cf. the *GOE*, described above, and also various computer systems), as if it characterized occupations. More strictly speaking, interests are not a property of occupations but of persons. Activities characterize occupations. Thus the activities involved in an occupation provide opportunities (greater or less) for satisfaction of any of an individual's interests. But simple trait-matching--"square pegs in square holes"--does not work. Many occupations require some variety of activities. While people in these occupations may be able to emphasize some activities more than others, in keeping with their own preferences, they are rarely able to limit themselves only to the activities that appeal to them. At the same time, and conversely, people usually have a "surplus" of interests beyond those that correspond to occupational activities. Furthermore, some occupations require activities that hold very low intrinsic interest for most people; activities in others may be quite popular. In short, it is clear that--even when corresponding dimensions are identified--the distribution of interests in the population is far from identical with the distribution of corresponding activities in the world of work. Part of the content of choice, then, is first to decide how important it is to satisfy some major interest and second, *only if it is important*, to identify occupations in which a large share of the activities meet that interest. *Systems that retrieve occupations on the basis of scores on an interest inventory--or worse, "having" or "not having" some interest--often miss this crucial point*.

In a similar sense, other traits of people are far from a perfect match with characteristics of occupations. Workers' abilities and aptitudes are often much broader than the requirements of their work, even when requirements include credentials as well as competencies. Corollary to this observation is the concept of *multipotentiality*: While some occupations require highly differentiated skills and talents, many others can be handled successfully by most of the work force.

Analogous to the problems of linking individual interests to occupational activities, and abilities to requirements, is the problem of finding appropriate connections between people's values and the opportunities for rewards and satisfactions offered by occupations. As with interests and abilities, people have more values than work can fulfill; they can get some satisfactions and rewards from virtually any occupation, but (usually) none will provide complete satisfaction. So again there is almost always a need for compromise. Only the naivete of a Candide would expect perfect compatiblity between what a person wants and the opportunities for gratification offered by occupations and jobs. The solution again is to identify and define appropriate dimensions that link values to occupational characteristics. Given that some values are more important than others to any person, which occupations tend to provide opportunities for relevant rewards and satisfactions, and to what degree?

What is an occupation? Thus the occupational universe can be conceptualized in a multiple-domained multidimensional space. The domains might include nature of work activities, construed along dimensions which might correspond, in part, to various interest factors; requirements and opportunities for entry, with dimensions linked, in part, to amount and kind of education or training, aptitudes, abilities, and skills; and returns or instrumentalities--the opportunities offered by occupations for various kinds of rewards and satisfactions--with dimensions relevant, in part, to occupational values. (Work environment and conditions may be properties not so much of occupations as of jobs.) In any given case, it is important to note, the interface between individual characteristics and occupational attributes tends to involve only selected facets from each domain--not like the hackneyed square peg in a square hole, but more like the fit of a person to a park bench.

Each occupation represents some set of central tendencies on such attributes (i.e., activities, requirements, returns). Around this centroid are distributions on each dimension of each attribute, representing variations within an occupation. Obviously, a given pair of occupations may overlap in one or more attributes and differ in others. That is why no singular or hierarchic system for classifying occupations is satisfactory. Rather, the decision-maker needs to be able to select some reasonable number of dimensions that are important to her or him. Given a multivariate classification system, the universe of occupations can be screened on a selected set of specifications simultaneously; what is retrieved is a list of occupations that are--at some reasonable confidence level--similar in the respects specified. The list will change as specifications are changed.

In answering the question of what an occupation is, then, it is necessary to recognize that occupations are generalizations or abstractions from observed phenomena. They cannot be defined or described without the benefit of generalizations about such attributes as activities, requirements, and returns. As always in generalizations, some information is lost. This loss is outweighed by a gain in summary power. Granted, some jobs and positions within an occupation are out at the fringes of the generalizations. These deviations from the centroid come into focus when one chooses jobs or positions. But the centroid itself (say, the mean plus or minus one standard deviation on each dimension) is what one chooses when one chooses an occupation.

This is fortunate for long-range decisions and plans, since the central tendencies represented by an occupation are more stable than the individual jobs and positions that it comprehends.

By the same token, since career decisions of secondary school students must be oriented to the future, it is desirable that appraisal of individuals focus on relatively stable attributes. Abilities, interests, values, temperaments, and other domains commonly assessed in individual appraisal for career decisions are often stable but often may indeed change with maturation, experience, and circumstances. Therefore it is important for decision-makers to learn not just a particular match between their characteristics and those of occupations at a given time but also the structure and procedures by which such linkages between characteristics of individuals and of occupations can be made. Structural rules for four distinctive models of career decision-making--representing a considerable variety of rationales and approaches embodied in different systems--are described in the concluding section of Katz and Shatkin (1980), and need not be repeated here. The point is that a continuing sense of structure--the rules for linkages and decision-making--are an important component of what career information resources should provide.

4. Style

> Differences in style, as well as scope, appear in the many media represented among guidance resources. Some tend to be relatively passive, like an occupational monograph filed in a cabinet. Others, like a display on a bulletin board, are more visible. Still others, like a counselor sending for a student, are active. Some sources of information tend to be vivid and memorable, like first-hand work experience in a slaughterhouse; others--like perusing the Dictionary of Occupational Titles--may seem dull and forgettable. Dramatization and exposition have different impacts. Pictures are different from words. Whether the same words are written or spoken makes a difference in what is communicated to various people. Each medium of communication has its distinctive characteristics, inherent virtues and disadvantages, and each style of communication may encounter a responsive or resistant style in the person to whom it is addressed. . . .
>
> In addition, stylistic variations within any medium may be as great as variations between media. Thus all books are not written in the same style: a book may stimulate intensive activity in a reader, who will be spurred to frame questions, seek answers, carry on an unvoiced dialogue; or a reader may be moved only to scan it dutifully, fulfilling an assignment to cover certain pages. (Katz & Shatkin, 1980, pp. 39-40)

There is little to add here to the treatment of style which is introduced by the extended quotation above. As pointed out in that section, each medium is a distinctive art form, and there is great variation in the artistry of those who develop resources within any given medium.

Certainly at the most fundamental level, one function of style is comprehensibility to the intended consumer. Table 79 in Chapter X of this report shows that students used various media with different frequencies to get information on a number of specified topics: work activities, prerequisites for entering an occupation, outlook, wages or salaries, opportunities for satisfactions, and "a list of occupations you might like." Students were then asked (for each medium), "Did you find the information you wanted?" and "Was it hard to understand the information?" (Questions 16-17 for publications, 22-23 for computers, 28-29 for microfiches, 34-35 for sorting cards--student questionnaires). Responses summed across strata are represented in Tables 35 and 36. Differentiations by stratum appear in Tables 37 and 38.

For publications, which had the most frequent use, there was very little variation across strata: about one-eighth of the respondents found *all* the information they wanted, about half found *most* of it, and over a third some of it; only about 2 percent said none. To the question about difficulty, almost a third said *sometimes* and almost two-thirds said *no*.

For computers, Stratum 1 tended to differ from Strata 2 and 3 in amount of information obtained: about a fifth of Stratum 1 compared with about a quarter of 2 and 3 got *all*. Strata 1 and 2 responses indicated a little more difficulty than 3 in understanding: about 64 percent said *no*, compared with 73 percent of Stratum 3. Thus computer systems, most widely used in Stratum 3, were also clearly most comprehensible there, and tended to be least informative in Stratum 1.

Differences across strata were also found in amount of information obtained from microfiche. About 60 percent of Stratum 1 students got *all* or *most* of the information wanted, compared with about 71 percent of Stratum 2 and 67 percent of Stratum 3; close to 70 percent of each stratum had no difficulty understanding the information they got.

Responses to sorting cards showed some slight differences between Stratum 3 and the others: across all strata, 61 percent found *all* or *most* of the information they wanted. The main difference was that 5 percent of Stratum 3 found *none*. The information was hard or sometimes hard to understand for about a third of the students: 60 percent of Stratum 3, compared with 64 percent and 65 percent of Strata 1 and 2 indicated *no* difficulty.

The single most noteworthy conclusion from students' responses to these items is that computer systems were more likely than the other media to provide all the information desired. Other than that, a considerable majority of students said they had obtained *all* or *most* of the information they wanted from whatever resource they used and a similarly impressive majority said the information was *not* hard to understand. While there were often differences between strata, these differences were not consistent across media or across items.

In questions 49-58 students were asked how much they know about various topics pertaining to an occupation they are thinking of entering. For each topic, they were then asked from which source they got most of this information. Table 73 in Chapter IX shows the most commonly cited resources for the five topics. While responses are greatly dispersed, parents or relatives, someone in the line of work, and publications are the most frequently chosen sources for every topic, followed by teachers and--more distantly--by counselors. That these five categories led all others is in large part attributable to the fact that they are universally available. Then, for one topic, work activities, students were asked in Question 59 why they used whatever source they had named rather than some other source. Multiple responses were permitted, and there was of course considerable dispersion over the 10 options. It is interesting in discussing style, however, to note that the top five, pooling across strata, were "I wanted to get a general idea of that occupation" (about half the students), "I wanted to find out what it was REALLY like to be in that occupation" (almost half), "It was easy to get information from this source" (42-48 percent), "I thought that the information from this source would be up-to-date" (about 36-39 percent), and "I thought that the information from this source would be easy to understand" (about 30 percent). Thus of the five leading reasons, three appear to pertain quite directly to style: a sense of vividness and reality, ease of access or use, and comprehensibility. Of the remaining two, one ("general idea") seems to include scope as well as style, and the other ("up to date") applies to procedures.

5. Procedures

It is difficult to make judgments about discrepancies between data contained in different resources. Suppose, for example, two resources give different "average" salary levels for an occupation. Assume that both refer to the same year, and there are no other obvious reasons for the discrepancy, such as use of a mean in one case and a median in the other, experienced workers only vs. inclusion of beginners, and so on. Which is "correct"? There is really no way to tell except to look at the procedures each developer used to arrive at the respective figures.

In the beginning, one can assume that there is a universe of occupations and that there is a universe of facts about these occupations. Some of these facts have come under observation. Observations are collected and organized as data. Data, in turn, are interpreted and transformed into information. Information, when filtered and absorbed by a student, becomes knowledge. Knowledge becomes useful as it feeds into decisions, plans, and actions. Thus is seen a systematic winnowing process. This process involves many decisions by the developer: sources of data; methods of collecting, analyzing, and interpreting; training and responsibilities of staff; frequency of updating; use of reviewers; and so on.

Limiting the task. Consideration of procedures for even a few resources is a very lengthy task. For example, a concise handbook describing procedures for collecting and interpreting information for a single computer-based guidance system runs to 150 pages (Pears & Weber, 1980). Developers of most resources do not even report their procedures in any such formal way. So to dig out the necessary information, to describe and evaluate the procedures underlying every occupational information resource listed in Question 11, would require more time for this one section of one chapter of the report than was allotted for the entire study. It would also involve a great deal of repetition. Most information in most resources is not based on original studies. Rather, a few major primary sources are used again and again, with relatively minor adaptations of substance by the developer. (Changes in style are more noticeable.) For example, developers of most resources do not set out to do their own job analyses and define occupational titles from scratch. Rather, they depend on the Dictionary of Occupational Titles (DOT). Developers almost never do their own validity studies to discover the relationship between abilities and occupational requirements. They tend to rely on statements from another source. Nor do they make their own national projections of occupational outlook. Instead, they use projections from the Department of Labor Bureau of Labor Statistics, such as appear in the Occupational Outlook Handbook (OOH). Therefore, to describe and evaluate procedures for each resource separately would be an exercise in redundancy. Focusing on procedures undergirding the standard primary sources for national information enables us to cover economically some of the most important components of procedures for career guidance information in many resources.

State and local information is another problem. It is not realistic within the scope of this study to scrutinize procedures in every state and locality. Furthermore, many resources are by their nature fluid. That is, they vary not only from place to place but from one incidence of application to the next. Thus, in the extreme case one would have to consider every occupational unit in every class, every person in every work experience program, every career day, every job site tour, every conference with community representatives, every collection of audiovisual materials. To attempt to encompass procedures for all these fluid resources in this one section of one chapter would distort the study out of all proportion.

In addition, we have seen that some resources are only sparsely available. Others, though available, are rarely used. So it seemed best to concentrate on the most influential resources.

In short, then, we have used three bases for limiting our consideration of procedures: (1) major attention to primary sources, from which information is borrowed by other producers and publishers, with a few illustrations of variations in substantive adaptations; (2) standard resources, which are the same no matter where they are used, rather than fluid resources, which may be protean in shape and substance from one school to another; (3) availability and use, to cover the resources that are most nearly universal and of interest to the greatest number of people. The main focus in this section, then, is on such resources as the major Department of Labor publications (e.g., the DOT and the OOH) and the two most widely used computer-based systems, Guidance Information Systems (GIS) and Career Information System (CIS). Most of the conclusions apply, by extension, to many other resources.

Occupational definitions in the DOT. One illustration of a description of procedures is from the DOT (U. S. Department of Labor, 1977). An important component of occupational information is the definition of each occupation; it must be kept up to date as changes take place in industrial technology and in work activities. According to the 4th edition of the *DOT* (p. xiv),

> . . .analysts on State Occupational Analysis Field Center staffs...make on-site job analyses of the spectrum of jobs in various industries to verify or revise the definitions. . . . The fourth edition is based on more than 75,000 such on-site analyses conducted from 1965 to the early- and mid-1970's, and on extensive contacts with professional and trade associations. . . . As a result of this program, over 2,100 new occupational definitions were added and some 3,500 deleted as compared with the third edition.

Procedures for constructing a definition are also described (U. S. Department of Labor, 1977) in terms of such elements as a lead statement, task statements, glossary terms, "may" items, and so on. The consistency of organization and style across occupational definitions attests to the effectiveness of a training program for job analysts. An important element of the training program is, one must assume, the *Handbook for Analyzing Jobs* (U. S. Department of Labor, 1972--which has presumably undergone later revision). Under the category of Work Performed, the handbook spells out Worker Functions, Work Fields (including "Methods verbs" and "machines, tools, equipment, and work aids"), and "Materials, products, subject matter, and services." Sentences are constructed according to a consistent, formalized pattern. Typically, a verb at the beginning of a sentence (the worker is always the implied subject) states a worker function. The immediate object of the verb designates the machine, tool, equipment, work aid, people, or some form of information that is acted upon or is the product of the action. An infinitive phrase or prepositional phrase often follows, with the infinitive or gerund indicating a work field and the object of the infinitive or gerund naming "Materials, products, subject matter, or services."

As prose, these definitions lack grace and color. But that is a matter of style, and here we are concerned with procedures. For all their dogged formality and stiffness, the definitions manage to achieve consistency and precision in concise form across thousands of occupations analyzed and defined by staff from eleven Occupational Analysis Field Centers.

Selection of occupational titles. Criticism is always possible. Landrum and Strohmenger (1979) complain about gross imbalance in favor of industrial occupations: fourteen different kinds of welder are defined in detail, but only one kind of secondary school teacher; oceanographer appears only as a related title, with no separate definition. Inferences about procedures cannot be made unequivocally from such decisions on which titles to define, but a guess is that the site visits tend to be mainly at large industrial establishments. Also, some occupations are by their nature more observable than others: therefore, the job analysis procedures evidently permit distinctions to be more readily made in terms of *visible* activities than intellectual activities.

Scales for Data, People, Things. Another type of criticism can be addressed to procedures for interpreting and organizing information about work activities into levels of skill required in three areas. The hierarchic scales for Data, People, and Things are represented by the three middle digits of the nine-digit occupation code in such a way as to imply parallelism--as if a given number represented a similar level of complexity in each of the three functions. This is misleading. For example, under People, levels 0 to 5 are used for activities labeled Mentoring, Negotiating, Instructing, Supervising, Diverting, and Persuading, respectively. On the face of it, these all appear to represent a high level of complexity. Under Data, on the other hand, just levels 0 to 2 (Synthesizing, Coordinating, and Analyzing) and under Things only 0 to 1 (Setting up and Precision Working) appear high. Telescoping the six to eight levels now used into three--high, medium, and low--would provide a closer and more useful approximation to equivalency of the scale across areas while avoiding finer discriminations than the concepts and data permit. Incidentally, a reasonable addition would be to establish a level higher than "Setting up" under Things: this would be designated "Inventing or Designing," and could include work in the fine arts. At present, occupations like sculptor and painter are classified as 061 on Data, People, Things. "Synthesizing" (the 0 on Data) is defined by the DOT as "Integrating analyses of data to discover facts and/or develop knowledge of concepts or interpretations." This definition does not fit the design and workmanship required of the sculptor or painter who works with visual and material elements rather than data, and the rating of "Precision Working" (the 1 under Things) falls short of describing the level of creativity involved. (Since the arrangement of levels purports to be hierarchic, "Precision Working" would be subsumed under "Inventing or Designing.") Adding "Designing or Inventing" at the 0 level would bump the other descriptors down a notch on the scale; providing an additional high-level activity under Things would help bring that scale into closer equivalence to the other two scales. Of course, if the scales were telescoped into high, medium, and low, the need for discrimination between "Inventing or Designing," "Setting up," and "Precision Working" would disappear. The hierarchic arrangement for the first six levels under People is particularly difficult to defend.

Another addition to procedures is recommended here: the development of a comprehensive thesaurus of verbs for work activities at each level (high, medium, or low) to assist analysts in determining which activities (other than the ones now designated by six to eight terms in each category) warrant rating an occupation at a comparable level. A substantial step towards completion of such a thesaurus has already been taken for the three levels of skill and complexity (high, medium, and low) under Data, People, and Things. Figure 1, extracted from a procedural handbook for obtaining, developing, and interpreting occupational information (Pears & Weber, rev. 1980), illustrates the present stage of accomplishment.

Clearly, such criticisms notwithstanding, the magnitude of the effort involved in developing the DOT occupational definitions makes this volume a major source for developers of other occupational information resources. While the limitations of the DOT for use by students in making career decisions are well known, a dictionary must be evaluated mainly by its definitions, and these have much to be commended.

Physical demands and working conditions are directly observable by job analysts, and there is little fault to be found with analysts' ratings of such occupational characteristics as the amount of weight that must be lifted,* whether stooping is required, whether work is done inside or outside, with or without severe noise and vibration.

One cannot say as much for the success of procedures for rating occupations (in previous editions) on such worker traits as "interests," "temperaments," and aptitudes. The *DOT* has been more successful as a dictionary than as an encyclopedia. When job analysts are asked to shift from observation to inference, they need more rational structures and procedures than have been provided for interests, temperaments, and aptitudes.

Interests. The decision to use as interest dimensions the five bipolar factors that emerged from Cottle's analysis of the MMPI, SVIB, KPR, and Bell inventories is difficult to understand (Cottle, 1950). So is the decision to designate a given factor merely as "important" or "not important" rather than scale or rate its degree of importance. In any case, the dimensionality of the domain has now been revised and the classification of occupations in such terms has been transferred to the *GOE*. The *GOE* has been discussed above, and the critique need not be repeated here.

Temperaments. Apparently, temperaments will be incorporated in another supplement. (Similarly, ratings of occupations on aptitudes, physical demands, environmental conditions, and education and training time have been omitted from the fourth edition and reserved for future supplements.)

It may be inferred from the 1972 *Handbook for Analyzing Jobs* that the new supplement on "temperaments" will embody dimensions somewhat different from those in the third (1965) edition of the *DOT*: Some pairs of separate dimensions in the third edition were defined as if to represent opposite poles of a single dimension--for example, (1) variety and (2) repetitive operations, (5) working with other people, and (6) working alone. The first pair survive in the *Handbook* as V (variety, change) and R (repetitive, continuous), but (6) working alone has disappeared.

As far as the current *DOT* is concerned, there would be no need to evaluate procedures for information on "temperaments" that appears in obsolete editions. Unfortunately, however, many other resources of all kinds have based their information on these worker traits incorporated in the third edition of the *DOT*. They appear to have done so rather mindlessly, perhaps because the *DOT* Data Display Tape was *there* with occupations neatly categorized as to whether certain worker "temperaments" are or are not "important."

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*This judgment is contradicted by a study of inter-rater reliability (Cain & Treiman, 1981), which appeared while this report was being printed: Job analysts' ratings of strength required for a sample of occupations were shown to be very unreliable.

The problem with the *DOT* "temperaments" is mainly conceptual. This reviewer was unable to find any rationale for the way in which the domain was constructed or the dimensions selected. The relationships between the dimensions are not clear--for example, it seems likely that just as some pairs of constructs, such as "variety" and "repetition," are negatively correlated, other pairs, such as "direction, control and planning" and "influencing," must have a high positive correlation. The illustrations in the *Handbook* point up the inevitability of this outcome: one illustration under "influencing" starts, "*Plans and directs* educational campaigns..." (emphasis added).

The fact that developers of other resources using the *DOT* "temperaments" have experienced a problem in identifying the domain points up the conceptual problem. For example, the QUEST questionnaire for CIS introduces paraphrases of some of the "temperaments" by stating, "NATURE OF WORK: People have different *personalities*, and so do jobs. Your personal *likes, values, and interests* will affect the kind of work you choose." (Emphasis added). GIS encompasses a number of the "temperaments" under the rubric of "INTERESTS," folding them into the major categories of "people," "ideas or numbers," and "things or machines." The Ohio Career Information System refers to them variously, under the heading "Work Activities Which Describe the Occupation," as "personal adjustments," "job demands," and "work situations (activities)." These dimensions clearly overlap with a separate set of dimensions called "Interests" by OCIS. While the developers of these other systems may be faulted for their mindlessness in mingling, mangling, and copying such ill-defined dimensions from such ill-differentiated domains, the *DOT* developers can not be held blameless: "temperaments" have been named without palpable foundations in research, theory, or rationale and have proven highly susceptible to the "jingle" and "jangle" fallacies.

Aptitudes. There are difficulties also with *DOT* ratings of aptitudes, and with the subsequent slavish use of these ratings by other resources in so-called career information or guidance systems.

The derivation of the *DOT* aptitude categories--unlike the temperament dimensions--is clear. They have been taken essentially from the General Aptitude Test Battery, developed by the U. S. Employment Service and used by the State employment service offices since 1947. In that period, a great deal of developmental work and research has been accomplished as described, for example, in the most recently available *Manual* (Department of Labor, 1970). At that point, the GATB had evolved into 12 tests contributing to scores on 9 aptitudes: G (Intelligence, or general learning ability); V (Verbal); N (Numerical); S (Spatial); P (Form Perception); Q (Clerical Perception); K (Motor Coordination); F (Finger Dexterity); and M (Manual Dexterity). Norms had been derived from a sample of the "General Working Population" (in the age range of 18 to 54), and scores had been converted to a standard score scale with a mean of 100 and a standard deviation of 20 for each aptitude. Studies had been accumulated of the relationships between GATB scores and various criteria of successful performance in occupations and in training programs. Job analysts had also continued to rate the relevance and importance of the various aptitudes for each occupation and groups of occupations.

To derive norms for specific occupations, the kinds of data indicated above were considered together. That is, for each occupation a preliminary set of aptitudes was selected from some combination of those with relatively high mean scores, relatively low standard deviations, significant correlations with the criteria of successful performance, and ratings of "critical" or "important" in job analyses. From the preliminary set an Occupational Aptitude Pattern (OAP) was determined using dichotomized criterion groups: The OAP set minimum scores on three aptitudes for a given occupation such that most of the individuals in the high criterion group would be "qualified," most of those in the low criterion group would be screened out, and the proportion screened out would approximate the proportion in the low criterion group. The standard used for judging the validity of the OAP was its relationship with the criterion--a phi coefficient significant at the .05 level.

There has been, as might be expected, some difference of opinion about these procedures. Much of the controversy has focused on the use of multiple cutting scores rather than a multiple regression analysis for selection and guidance of prospective workers. For example, Weiss (1972) points out that the OAP approach "fails to give any indication of the relative probabilities of success if the individual qualifies for more than one OAP." To this, one may add that since the aptitudes are positively correlated--the median correlation was .44 in an intercorrelation matrix based on 23,428 employed workers, applicants, apprentices, students, and trainees (U. S. Department of Labor, 1970)--people at or above the mean on one aptitude (say, G) are quite likely to "qualify" on OAP's for a large number of occupations. Weiss goes on to suggest that "at a minimum" counselors (and presumably counselees) should be provided with tables of "hit rates" for predictions of success and nonsuccess. Weiss also objects to the failure of U. S. Training and Employment Service (USTES) to do empirical studies, from data in its files, comparing multiple cut-off with other prediction methods.

To Weiss's critique one may also add that use of multiple cut-off procedures is incontrovertible when strength in one relevant aptitude cannot compensate for deficiency in another: for example, airplane pilots require good vision, and people who are tone deaf--regardless of their other aptitudes--have not been able to succeed in sonar training. But aside from such obvious situations, the more general finding is that strength in one predictor tends to compensate for weakness in another. Then multiple regression techniques that weight and sum aptitudes into a composite are usually more valid. Lord (1962) has provided a strong demonstration that this conclusion holds particularly when the predictors are fallible, as in the case of test scores, "because the desiderata in the selection procedure are surely unrelated to the errors of measurement . . ., yet the selection is determined in part by these errors of measurement . . . [p. 19]. Other things being equal, either low reliability of predictors or high correlations between them tends to increase the difference between the multiple-cutting-scores selection region and the optimum selection region" (p. 29). He concludes, "Anyone now using multiple cutting scores with . . . [such] predictors would do well . . . to allow a high value on one predictor to compensate at least partially for a low value on another" (pp. 29-30).

Weiss (1972) also suggests the GATB--developed originally for a largely "blue-collar" labor market--has not changed with the shift to a largely "white-collar" labor force. He recommends basic revisions. Indeed, the *Manual* notes (p. 350) particularly low validities for clerical and other jobs for GATB administered in the late 1950's and early 1960's to high school students who were followed up two years after high school graduation.

These--and other--criticisms of the OAP's and operational use of GATB for career guidance are cogent. Nevertheless, there is much to be said for the long-term large-scale development and research undergirding the use of GATB. If one *wants* to attempt to predict success in a large number of occupations, there is simply nothing remotely comparable to it in scope of accumulated research over four decades. The USTES has confronted problems of enormous complexity and difficulty and has made the necessary compromises by and large in a reasonable way. In an applied program of this sort, it is impossible to do everything in a perfectly clean and rigorous way. The real world is too messy for that. The difficulties of getting representative samples and good criterion measures for many occupations, the pile-up of obstacles to longitudinal studies, the pitfalls in trying to interpret data in a useful way under diverse circumstances, are well known to anyone who has labored even a little in this vineyard. Even though the grapes are sometimes more desiccated and less abundant than we would like, we must be amazed that a harvest has been accomplished at all.

In short, the procedures involved in GATB development and research are open to criticism. They may be useful for *selection*, in which even modest validities may lead to higher criterion outcomes. But they are of very dubious utility for *guidance*. One may indeed make a case against their use for guidance as misleading and therefore counterproductive. But, whatever their shortcomings, there is nothing better available for prediction of success in occupations across the whole spectrum of work in America. Whatever doubts are entertained against use of the OAP's for guidance, the procedures for providing the information are themselves--for the most part--explicit and rational. They represent a reasonable compromise between scientific rigor and pragmatic expedience.

Unfortunately, this massive research base for GATB is virtually abandoned--or compromised too much--in the procedures for using the GATB categories in the *DOT*. Only the factor categories have been retained, and even these have not been kept up-to-date: for example, by 1970, E, eye-hand-foot coordination, had been merged into K, Motor Coordination, with which it was highly correlated; yet the current *DOT* tape--which is used by career information systems--retains E.

Of still greater concern is the abandonment of "hard" data, accumulated through so much travail, providing norms and validities for the aptitude scores based on samples of people in many occupations. Substituted for empirical data are the judgments of job analysts, who decide which aptitudes are relevant for an occupation and what level of each is "required" for "satisfactory (average)" performance. The levels are defined on the following scale: 1 = the top 10 percent of the "general working population," 2 = the next 23 percent, 3 = the middle 33 percent, 4 = the next 23 percent, and 5 = the lowest 10 percent. These ratings on aptitudes judged significant for 12,099 occupations appear on the current DOT Data Display Tape and are used directly by GIS and CIS, the most prevalent computer-based information systems nationally, as well as by other resources, although there are some minor differences from one resource to another in the transformation and use of the scales. For example, in the GIS Guide for student use, Edition 11 (TimeShare, 1979), an aptitude is listed for an occupation "only if the job requires a high degree of that aptitude (i.e., the top 40 percent of the population)." In other words, aptitudes that are deemed relevant and are scaled at level 1 or 2 on the DOT tape are regarded as requirements for a given occupation. (The use of 40 percent in this context rather than 33 percent is a misinterpretation by GIS of the DOT scale.)

Level 1 or 2, according to the scale defined above, is at or above the 67th percentile rank in the general working population. This rank is tantamount to a standard score of 109 on a GATB aptitude. Of the 62 OAP's listed in the USTES Manual (U. S. Department of Labor, 1970) only one has all three components above this level, and 57 have all three components below this level. When an aptitude is above this level, it is invariably G, N, or S. There are no OAP's at level 1 or 2 for P, K, F, M, Q, and V. In other words, research data would support the use of only G, N, or S as "required" for an occupation under the GIS rule.

We examined the consequences of the procedure that is actually used by GIS for a few occupations chosen at random. GIS lists seven "aptitudes required" for Architectural Drafter: N, S, P, Q, K , F, and M. Reference to the USTES Manual (Department of Labor, 1970) shows an OAP of NSP (90,95,90), with a phi coefficient of .22. The correlation coefficients for K, F, and M with the criterion are not significantly different from 0. Thus students who take the GIS (DOT tape) list of "aptitudes required" seriously might disqualify themselves from the occupation on grounds of low K, F, and M abilities even though the research data show no relationship between scores on these aptitudes and performance on the job. Furthermore, they could be below levels 1 and 2 on N, S, and P and still "qualify." This is to say nothing of the great fallibility of their probably uninformed perception of their own standing in these aptitude dimensions. Thus two sources of probable error are compounded: a job analyst's judgment of aptitudes required and a student's assessment based on a one-sentence definition of each aptitude. (Furthermore, even lower cutting scores than the OAP's should be used for 9th and 10th grades.)

GIS lists six "aptitudes required" for Dental Hygienist: V, N, S, K, F, and M. The Manual shows an OAP of GSP (105, 95, 100). The phi coefficient for this OAP is given as .54. Again, K, F, and M are not significantly correlated with the criterion. Again, people below levels 1 and 2 on G, S, and P would "qualify" according to the research data.

GIS lists only one aptitude required for plumber, M. The OAP is NSM (80,95,85) with a phi = .19. Correlations with the criterion are significant at the .01 level for N and S, as well as for M: the Manual lists them as .30, .29, and .20, respectively, in the validation sample; of the three aptitudes, only N was significant (at the .05 level) in the cross validation, with a coefficient of .25. Incidentally, Q was significantly correlated with the criterion in both samples, the coefficients being .30 and .22, respectively. If aptitudes below levels 1 and 2 were included for Architectural Drafter and Dental Hygienist, why were N and S not included for plumber, especially since the cutting score for S (95) is higher than for M (85) on the OAP? Thus the DOT tape, as represented by GIS, is not even consistent in the direction of its departure from a research base.

CIS, as indicated above, uses the DOT tape in a slightly different way from GIS. It designates level 1 as High, levels 2 and 3 as Medium, and levels 4 and 5 as Low. The instructions to the student also take on a somewhat different connotation: While GIS speaks of aptitudes that an occupation requires, listing only occupations that are at levels 1 and 2 on the DOT tape for a given aptitude, CIS invites the student to "Mark the highest level of [the aptitude] you want to use on a job." (Emphasis added.) Then, any occupation rated at or below that level on the DOT tape would be retrieved.

Another important distinction between GIS and CIS is that GIS makes students' use of aptitudes optional--a student can bypass the entire array--whereas in CIS the "abilities" section is part of a universal sequence. A student can, in effect, duck a given aptitude by responding "not sure" instead of low, medium, or high--but some response is called for on each of eight "abilities." GIS includes a total of ten aptitudes from the DOT tape; it omits G, reasonably enough since G is a function of tests that overlap those contributing to V, N, and S. CIS, however, includes G, but omits Color Discrimination and the GATB S and M; it also adds "Physical Activity" to the aptitudes, making a total of eight.

Notwithstanding these differences between GIS and CIS, the use of the DOT tape results in essentially the same departures from a research base for one system as for the other. Thus the criticisms addressed at GIS, above, apply equally to CIS. There is at least one additional serious anomaly in CIS. The aptitude domain is defined differently under direct access from the way it is defined under structured search. That is to say, the written descriptions of aptitudes for an occupation include dimensions quite distinct from the aptitudes used to retrieve occupational titles. For example, CIS describes "aptitudes" for Salespersons as follows: "Average ability to do arithmetic; ability to stand for long periods of time, communicate clearly, and to deal with the public." The punctuation here is troublesome: it is not clear whether everything after the semicolon represents one aptitude or three. In either case, there is no such one aptitude listed in QUEST (the questionnaire in which students specify the aptitude levels) nor does it contain any aptitudes remotely resembling either "stand for long periods of time" or "deal with the public." (Illustrations are limited to GIS and CIS here only because these were by far the most widely used computer systems in high schools.)

A sampling of the various state microfiche systems (VIEW) indicates that they conceptualize the aptitude domain in rather indiscriminate ad hoc terms. For example, in Florida VIEW the following "Scholastic Aptitudes" are listed for Plumber: mathematics, chemistry, welding, blueprint reading, mechanical drawing, metal and wood shop. Oklahoma VIEW lists the following "Aptitudes" for Plumber: work from awkward positions; work without direct supervision (but "prefer working alone" appears in an adjacent column under Personal Traits!); bear responsibility for correct decisions; work indoors or out; tolerate dirty, unpleasant conditions; tolerate unpleasant odors. For Sales Clerk, the following "aptitudes" are listed: meet the public; speak and write clearly; aptitude for basic arithmetic; adapt to fluctuating situations. Florida VIEW lists these "Scholastic Aptitudes" for Salesperson: catch on quickly; remember things well; think up new ideas; understand instructions; talk easily with people; do math problems quickly; use math to figure costs; pay attention to details. "Abilities" for Accountant are described by Missouri VIEW as follows: Understand and apply instructions and principles of a complex nature; reason and make judgments; organize complex data, make reports both orally and in writing; think mathematically; do accurate work. "Abilities" for Accountant are listed by Tennessee INFOE as follows: be able to write clearly in a small space; be able to concentrate for long periods of time; be able to do detailed work; be able to figure mathematical problems. Under "Personality" is listed "work accurately."

It is apparent from all this that the "aptitude" domain is construed in career information resources just as chaotically as the "interest," "temperament," or "personality" domains. In each case, there appears to be little agreement on the dimensions that comprise the domain. Even those who use the DOT tape select different components from it and apply them in different ways. Research, such as it is, is virtually ignored. "Aptitude" appears to mean whatever a given developer decides it is to mean in describing a given occupation. There is little consistency across resources for any occupation or across occupations for any resource. An aptitude may sometimes be synonomous with a physical demand, a temperament, a working condition, an interest, a preference, a requirement, or some other characteristic of personality or occupation. Procedures appear, in general, to lack rigor, clarity, definition, consistency, or logic.

Outlook. It was noted above that about 60 percent of the respondents to the school questionnaire chose the Occupational Outlook Handbook as the resource they would use for information about "employment outlook in various occupations over the next 5-10 years." The OOH is not only a direct source of such information; other resources--publications, computer systems, microfiche, and so on--tend to rely heavily on it. This information is particularly important to students who are considering a long-term commitment to education or training for a specific occupation. Demand/supply ratios observed when the decision to undertake the preparation is made may change by the time the preparation has been completed. Decisions made in the light of current rather than accurately projected information may tend to produce imbalance between demand and supply in some occupations and even oscillations in the direction of the imbalance (the phenomenon that economists call "cobwebbing"). Since occupations that require long preparation tend to be relatively "impermeable," market forces cannot be counted on to correct the imbalance; indeed, because the effects of responses to the imbalance at a given time are delayed, market forces may contribute to the oscillation. Accurate, comprehensible, well disseminated projections might dampen such oscillations and reduce the severity of the imbalances. On an individual scale, they might help students assess future employment opportunities more rationally before making a long-term commitment.

Evaluations of *OOH* projections in the past have shown them to be fairly accurate at a high level of aggregation, but more likely to be well off the mark for specific occupations (Swerdloff, 1969; Personick & Sylvester, 1976). Kelley, Chirikos, & Finn (1975) conclude (p. 46) that "complex predictions are little more than best guesses," because of unforeseen events, government decisions, technological change, and the absence of manpower considerations in formulation of public policy. The most recent evaluation compared the projections made in the late 1960's with outcomes in 1975 (Carey, 1980). Major group projections tended to be quite accurate, ranging from a 6.7 percent underestimate of clerical workers to a 9.1 percent overestimate of operatives (probably attributable to the 1973-75 recession). Differences between projected and actual employment in detailed occupations ranged from -43 percent for personnel and labor relations workers to +136 percent for plasterers, with the error for all 76 occupations evaluated averaging 20.8 percentage points. The *direction* of employment change between 1960 and 1975 was projected correctly for 64 of the 76 occupations. Generally, results were more accurate for occupations with large numbers of workers (over 50,000).

To those who find the accuracy of the projections unimpressive, it should be emphasized that *OOH* offers projections, not predictions; that assumptions about events--including absence of major war or depression--are clearly stated; and that biennial corrections and adjustments help to mitigate the effects of errors.

On the other hand, it must be noted that errors on the demand side may not be so difficult a problem as errors on the supply side. Demand consists of two main components: growth and replacement. Projections of growth in an occupation are most prone to error. They are, in part, derived from projections of growth by industry (which in turn is usually based on a model of the economy in the target years) and then allocated according to the distribution of occupations among the industries. Thus in the past, mistaken projections of growth of entire industries, such as construction and communications, have thrown off growth projections for many occupations. Replacement rates for occupations, however, can be projected quite well on an actuarial basis (for example, death and retirement rates are usually predictable from age distributions, and numbers transferring from most occupations can be reliably estimated). Since replacement is a far more important factor than growth, forecasts of demand are generally well anchored. For example, Pilot (1980) points out that "Replacement needs due to deaths and retirements, on average, account for about twice as many openings as those from employment growth" (p. 5), and there is an indication that transfer and other separations are a larger source of job openings than all the above-mentioned sources put together. Pilot also describes improved data collection for reducing errors in projected growth. These appear to be reasonable and promising improvements for projecting growth across the total spectrum of occupations.

Procedures for projecting the supply side of the equation do not appear to be nearly so explicit or well developed as for the demand side. Hard data scarcely go beyond numbers of people in each age cohort and the proportions expected to attain various educational levels, which are then regarded as the supply "pool" for various occupations. Useful "structural" supply models (Department of Labor, 1974) have apparently not yet been developed. For permeable occupations, the supply tends to be quite elastic and can respond rapidly to market forces. But, as indicated above, the lag in information about the market for impermeable occupations that require prolonged education or training may cause severe displacements in supply--the number coming out of the preparatory pipeline cannot be drastically changed on short notice. People who have prepared in college to become history teachers cannot abruptly qualify as engineers. By the time that word of a current surplus of history teachers and shortage of engineers reaches students entering the pipeline and by the time they emerge from their educational preparation, the imbalance between demand and supply in these occupations may have been rectified or even reversed--hence, the oscillation that has often been observed in certain occupations.

It will be interesting to see whether the recent proliferation of computer-based occupational information systems (Katz & Shatkin, 1980) will make current outlook information much more widely used by secondary school and college students and thereby tend to damp the oscillations. These systems do not contain better information about demand than is now available in the OOH and related Department of Labor publications; but there are some signs that they may improve the speed of communication of such information to students who are making educational decisions, plans and commitments. The question is one of timely use and understanding of information; it is hoped that Study 2 findings will shed some light on this question. Perhaps also continuing research on career lines or "trajectories" will illuminate the common-sense knowledge we have of permeability and transferability and therefore of potential supply: Which occupations are likely to be entered from which other occupations? What are the probabilities of entering a given occupation from a given major field?

Meanwhile, all in all, the OOH is a commendable source of state-of-the-art information about outlook. Particularly commendable is the recognition of need for an ongoing program of evaluation, research, and development to improve procedures. While this program appears to emphasize improvement of projections of growth, one wonders whether this component should receive as much emphasis as it does in the OOH write-ups. In our observation, many students tend to misunderstand growth projections as representing outlook projections. They fail to place such phrases as "Much faster than the average for all occupations," or "More slowly than the average for all occupations" in context with the number employed in the occupation and the prospective demand-supply relationship. That is, they construe rate of growth as representing the demand-supply relationship. Even when the projected rate of growth is the same for two occupations, the projections may have different implications when the absolute number of persons in the occupation is large or small--and will certainly have different implications if the projected demand and/or supply varies. One wonders also whether it would not be useful to include in the OOH the Bureau of Labor Statistics estimates (generously shared by BLS with other resource developers) of annual number of openings expected in each occupation.

Perhaps the most frustrating problem associated with the OOH is the inevitable lag between data collection and biennial publication schedule. This problem applies not only to outlook, but to other information as well, particularly earnings and (unexpectedly) addresses of "sources of additional information." Perhaps none is more subject to conspicuous obsolescence than wages and salaries.

Wages and salaries. While the OOH is a primary source of information on outlook, all other information contained in it is second hand. Since some other resources derive a great deal of their information on such topics as national wages and salaries from the OOH, these resources are likely to contain information that is very much out of date indeed. For example, the latest primary source on earnings for a given occupation--say, a survey conducted by a professional association--might contain data two to three years old when the OOH goes to press. That edition of the OOH is then in use for two years. A resource lifting the information from the OOH may go unrevised for another year or more. During a period of high inflation, with dollar amounts of wages and salaries rising rapidly, such information may be almost ludicrously obsolete when it reaches a high school student.

The argument can be made that outdated salary information is of no great consequence to students who are not on the verge of entering the labor market: the picture may well change even more by the time they are ready, and the important thing is that relative levels of different occupations be adequately represented. This argument has at least two weaknesses: first, that conspicuously obsolete information destroys the credibility of the resource, and second, that when relative levels do change over a five-year period the changes are likely to be particularly noteworthy.

One solution to the problem of obsolescence is to date every bit of information on salaries and wages. The difficulty here is that, since surveys and other primary sources are not done at the same time for all occupations, there will perforce be different dates for different occupations. A student may not notice the discrepancy in dates, or may well be confused by such asynchronous data and be unable to make appropriate comparisons between occupations. The expert--the developer of an information resource should be expert in such matters--is much more capable of projecting figures, when necessary, to a uniform date. Our experience has been that at a given date in one year actual salary figures (based on completed surveys, federal government GS levels, public school teachers'salary schedules, and other such primary sources) for the previous calendar year will be available for at least a third of the 200-500 occupations most commonly included in well-known career information resources. (The operative date is of course the year covered by a survey, not the year in which a survey is published.) Appropriate inflation factors for the remaining occupations can be determined from such annual series as Bureau of Labor Statistics releases on percentage increases for groupings of occupations (e.g., health) and the like. The accuracy of the projection procedure should be checked by systematically applying the same procedure retrospectively to occupations for which good actual figures are available. We have found such projections to be accurate.

National data on earnings are seldom comprehensive. Thus the OOH and other secondary and tertiary resources will often venture an "average," sometimes only a range, sometimes a range of "beginning salaries," sometimes a range for "experienced workers," sometimes an estimate for certain subgroups--for example, those employed by government--and so on. Clearly it is not possible to get equally accurate data on all facets of earnings associated with every occupation. Still, it seems worth some effort to define facets in a systematic and consistent way and then to give the best information available, with full acknowledgement of gaps and deficiencies. The categories of earnings should probably include the following (whether the base is national, state, or local): beginning, median, maximum possibilities, and variation. Each of these is susceptible to further detail--for example, variation can be by geographic location, experience, education, age, type of employer, and so on. Each category has obvious implications to a student, and one without the others may be misleading. Yet information about many of these categories is absent from most resources.

Values. It was noted earlier that substantial numbers of respondents to the school questionnaire were unable to name any resource for information about security or job tenure in an occupation, and about opportunities to help others. This is not surprising, since most resources have not developed procedures for obtaining, developing, and providing information about non-pecuniary rewards and satisfactions, except perhaps for activities related to interests. Secondary school students who value, for example, such intangibles as security, helping others, autonomy, prestige, variety, and leadership may look in vain for direct information about opportunities to realize these values in various occupations. When inferences made by job analysts are provided (as under some of the DOT "temperament" categories), the procedures that have gone into structuring the domain, defining the dimensions, and determining the ratings of occupations are not sufficiently explicit to be clear and not sufficiently undergirded by research to be convincing. Yet the tasks of clarification, research and application in this domain are manageable. Procedures for establishing the structure of the domain (and its independence from other domains) in terms that are relevant to students have been described elsewhere (Katz, 1963; Norris & Katz, 1970; Katz, 1974; Chapman, Katz, Norris, & Pears, 1977), and procedures have also been described in practical detail for defining each dimension, defining scale points on each dimension, and rating occupations on the scales (Pears & Weber, rev. 1980).

A suggestion. More could be done, however, in the way of first-hand data collection. Here we may note the custom, common to many resource developers, of using reviewers who are particularly knowledgeable about an occupation to check all the information going into the resource about that occupation. An important additional procedure could build on this custom: it would entail periodic surveys of a more extended panel of people in each occupation--indeed a representative sample of participant-observers who would serve not just to check information but to help collect and develop it. While this might be too expensive an enterprise for most resource developers to take on singly, it could be managed as a cooperative venture. Sampling and data collection could be handled by a single agency; the questionnaire could include a body of common items, with all developers sharing costs and responses. Each developer could also be allowed a limited number of additional items for a surcharge and would be the sole recipient of the responses to them. In this way, no one approach would be favored. Developers would be able to get the unique information they want economically, by piggy-backing it on the common information they all want. They would have more of a voice in national data collection, instead of having to take or leave the outcome of whatever kinds of data some agency of the

Department of Labor decides to collect and interpret and whatever procedures it uses. The lead role in establishing such a cooperative venture could probably best be undertaken by NOICC.

6. Costs

Costs of resources are not easily determined. Purchase prices, subscriptions, or rentals of publications, audiovisual equipment and media, computer hardware and licenses, microfiche, needlesorts, and so on are only one component of cost. Another major component is staff time required. A computer system or publication that can be used independently by students is less expensive than one that requires considerable staff assistance. Space and other overhead costs are also difficult to isolate, yet are likely to vary considerably. Cost should also be a function of use. If a school purchases or leases a computer terminal and pays an annual license fee for unlimited access to a computerized information system, the total cost will be the same whether the terminal remains idle for six out of the seven hours a day it is available, or is used continuously. But the difference in cost per student hour of use would be enormous. In the same way, publications, audiovisual materials, and the rest are less costly per unit of use if they are used frequently than if they gather dust through desuetude.

This is to suggest that costs can be compared across resources only by looking at the frequency of use within each school, as well as at the total expenditures involved. An illustration of how this can be done for computer systems appears in Katz and Shatkin (1980). It is not possible to do this kind of calculation for each resource independently of its use on a school-by-school basis. In general, however, it seems clear that nothing is so costly, if this approach to accounting is accepted, as a resource that is unused. That represents wasted money.

The rate of counselor use, as well as direct student use, is important, since counselors themselves are identified as a significant source of information for students. Of all the formal apparatus of occupational information in the schools, it seems from the questionnaires that the OOH is the most widely used nationally for the greatest variety of purposes. Although it has weaknesses and gaps, as indicated above, it appears capable of meeting a wide variety of needs. If a school could not afford any additional resources, the one indispensable resource would be the OOH.

A final comment on costs is that all real costs should be considered, not just cash charges to the school. If, for example, state or federal funds contribute to the support of any resource, this subsidy should not be ignored in comparing costs of different resources.

7. Effects

Since effects of guidance resources are the subject of Study 2, and previous studies have been described in the Review of the Literature (Shatkin, Weber, & Chapman, 1980) and by Katz & Shatkin (1980), this topic will be passed over here. One comment, however, may be made: It is extremely difficult to disentangle the effects of resources per se from the total school context in which their use is embedded. When school staff choose a given resource and are committed to its effective use, there is a good chance that it will be effective. That is, its effectiveness will usually depend as much on the enthusiasm and active participation of the staff as on its inherent qualities. Thus we have been much concerned, in visiting schools for Study 2, to get some information on the extent of staff commitment to use of occupational information. We suspect that "school effects" may outweigh the effects of specific resources.

8. Rationales for Intervention

Underlying the development of each resource must be some sense of how it is going to be used by students in making their career decisions. Occupational information is not meant to stand in isolation. Depending on how active or passive the resource is, it is an intervention or aid in a process. The theory underlying that process may be implicit or explicit. In any case, somehow the information is expected to tie in with a comprehensive program of guidance. It is one component of a model of guidance for career decision making. Furthermore, as it exists in secondary schools, it is one component of education. Thus, the effects of guidance on career decision making may be likened to the effects of instruction on learning.

Guidance resembles instruction in that it aims to foster the acquisition of knowledge, the development of understanding, and the mastery of competencies. It differs, however, in that a substantial portion of the knowledge must be provided by the learner. In guidance, the learner is part of the content. Career decisions depend largely on the values, interests, and abilities of the decision-maker; so it is essential to bring the student's "latent knowledge" (as Socrates calls it) of these characteristics into explicit awareness and expression.

A further distinction lies in a comparison of the purposes of education and guidance (Katz, 1968): Education purports to deal primarily with the "universals" in the culture, while guidance is concerned with the "alternatives." This dichotomy is not just a distinction; it also suggests an interaction:

> If the role of education is to transmit the culture, the role of guidance is to help the individual come to terms with the culture--that is, to see himself in the culture. But first he must see the culture in himself. Thus his first question should be, "Where have my values come from?" His second, "Where are they taking me?" (Katz, 1963, p. 22)

Guidance, then, is one of the most highly individualized components of education. It has emerged from such phenomena as the division of labor in society and respect for individual differences. It recognizes that different people have different needs, values, circumstances, backgrounds, preferences, abilities, interests, plans, developmental rates, and styles and that these differences affect the options that are available to them, the choices they make, and the processes by which they reach decisions.

Career guidance procedures typically (from Parsons, 1909, to the present) include attention to three major topics. Activities devoted to appraisal of the client loom large in most (but not all) guidance programs. Another major component is generally information about options. A third has to do with the evaluation of options, often involving paradigms or strategies for decision-making. To these may be added planning for appropriate action--ways of implementing decisions. Competencies in these four areas may be said to comprise the "curriculum" for career guidance (Katz, 1973).

A prior question that may help to differentiate models of guidance has to do with underlying philosophy and rationale: Out of what set of beliefs about human nature and the world of work have various systems evolved? On what basis do the interventions rest? What needs do they attempt to meet? What objectives are sought? These components of guidance for career decision-making--rationale, appraisal, information, planning, and strategy--warrant some amplification.

Rationale. It is generally recognized that society and the individual both have a stake in career decisions. Society wants its work done well. It craves excellence, as Gardner (1961) has said, in plumbers and philosophers lest neither pipes nor theories hold water. There are high economic and social costs for incompetence. Society also hopes for a nice balance between supply and demand in labor markets, one that will avoid both high costs and high unemployment. Society is also concerned with equity--equal opportunity for access and socioeconomic mobility. These objectives are frequently also in the interest of individuals. By the same token, matters of paramount importance to the individual--such as success and satisfaction in work--generally are benefits also to society. There is, nevertheless, often a certain tension between the societal stake and the individual stake in the rules that govern selection and choice at various transition points.

As in any transaction, there are overlapping interests but also some elements of competition or conflict between social and individual needs. Government, for example, tends to focus on manpower models. To the extent that government policy dictates a planned economy, individual freedom of choice tends to be restricted. The USSR represents an extreme example of such restriction according to manpower needs: for instance, access to educational institutions is severely limited, and"educational priorities are largely determined by the production goals of the state." (Rutkevich, 1969). In the United States, manpower policy has relied more on incentives than on restraints. In the 1950's, the National Defense Education Act, which provided for an unprecedented expansion of guidance services in education, was prompted largely by the federal government's perception of an urgent need to recruit able students for engineering and the sciences. More recent federal funding for guidance has emphasized reduction of unemployment (e.g., the Youth Employment and Demonstration Projects Act of 1977) and has called for special attention to "improve the match of youth career desires with available and anticipated labor

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demand" (the Comprehensive Employment and Training Act Amendments of 1978). Thus the extensive guidance apparatus now in place has been supported as a means of inducing youth to adapt to societal needs and conditions and presumably thereby to ameliorate their own status. Government intervention was deemed necessary because the labor market was regarded as too slow or inefficient to accomplish these aims.

This manpower approach to meeting national priorities for certain occupations through guidance often appears to assume that a single optimization rule applies to both the societal and the individual stake. The major premise seems to be that requirements, qualifications, and rewards are distributed along parallel scales. The rule then is to select the best qualified people for the highest priority until the quota is met, then work down the list to fill the next highest priority, and so on. Rewards would presumably be set (either by government dictate or by market forces) in line with priorities. This parallelism between individual and societal benefits is readily achieved if the only rewards of concern are earnings and attained status, generally defined so as to be highly correlated, as by Jencks et al. (1979). In this case, occupational choice and membership is a zero-sum game (as indicated by the title of the Jencks et al. book, Who Gets Ahead?). "Winners" and "losers" are all assumed to be striving to place as "high" as possible; "altitude" is the sole criterion.

Another view is that requirements, qualifications, and rewards are multidimensional. A selection rule to maximize societal benefits, then, might be analogous to minimizing the sum of squared differences between qualifications and requirements. But if rewards and satisfactions are also multidimensional, parallelism between societal and individual benefits may be absent. Variation in the importance attached to each dimension by different individuals means that they can "win" in different ways. They may then have stronger and more variable incentives than those associated with meeting manpower requirements. Thus manpower models are not optimal for individual benefits when (1) individuals are multipotential, (2) individuals vary considerably in their values, (3) occupational requirements are flexible, and (4) opportunities for rewards and satisfactions tend to vary considerably from one occupation to another. So the fact that more people persevere in wanting to farm or teach history than our present and projected labor markets appear able to accommodate may be attributed in part to lack of information or to skepticism about the validity of outlook information, but may also in part reflect the gap between societal and individual values. Notwithstanding the biological, economic, social, and psychological limitations on freedom, individuals still cherish their remnants of autonomy in making career decisions. They seek opportunities and options that provide satisfaction relevant primarily to their own values. Willingness to incur some level of risk is often part of this interaction between values, satisfactions, and probabilities of entry. An approach to guidance that aims to foster individual freedom starts by recognizing that

> within whatever constraints are allowed by being a member of the human species, having inherited a given set of genes, being brought up in a certain culture, and being subjected to selected arrays of reinforcements, most young men and women seem to want to

> become as independent as possible. They seem to want to use as much space as is left them for making their own decisions, for determining their own behavior--even those who decide to become behaviorists. (Katz, 1974, p. 44)

A proponent of this approach goes on to recognize that freedom without competence is frustrating. Freedom and ignorance are an ill-fated pair. Information about risks is an important component of the trade-offs that must be made between probable risks and valued rewards. Collecting and interpreting information and providing structures and strategies for its use are functions appropriate for professional intervention. But the outcomes of this process depend on individual values. To use professional competence to dictate the content of a person's decision is presumptuous. But

> Without directing the content of an individual's choice, we do think we can help him in the process of choosing. This emphasis on process does not pretend to insure the "right" choice--except insofar as the right choice is defined as an informed and rational choice. Our bias--our conviction--is that in education enlightened processes are intrinsically important. Therefore, we bend our efforts to increase the student's understanding of the factors involved in choice (imperfect though our own understanding may be) so that he can take responsibility for his own decision-making, examine himself and explore his options in a systematic and comprehensive way, take purposeful action in testing hypotheses about himself in various situations and exercise flexibility in devising alternate plans.
>
> In short, we don't want to play the decision-making game for him. We want to help him master the strategies for rational behavior in the face of uncertainty so that he can play the game effectively himself. (Katz, 1974, p. 68)

Manpower models of selection and guidance have the effect of erecting barriers and limiting access at relatively early stages in careers. They are dedicated to preventing failure, waste, and inefficiency in admission to training or preparation. Concepts of equity through compensatory education and selection are alien to this model but not to current social policy. So recent compensatory models (including special educational provisions and "affirmative action") aim to wipe out barriers, especially those that in the past have been associated with discrimination against minorities, women, and the handicapped. The thrust of these programs has been not only against discriminatory practices in selection but also against another constraint on equal access--the lack of appropriate information. Thus the first component of equal access has been legislative and administrative programs to make more opportunities available. The second has been guidance to make people aware of opportunities and aware of their own capabilities, interests, and values as these characteristics relate to options. The first is directed against external barriers. Guidance is directed against internalized barriers.

This is an important distinction. Despite the emphasis in federal support of guidance to reduce unemployment, it is important to note that guidance does not create jobs. Guidance, along with compensatory and affirmative action programs, may affect the distribution of certain segments of the population in various occupations. Such programs could also reduce structural unemployment, particularly in a tight labor market, but are unlikely to have much effect on the magnitude of unemployment in loose labor markets. Thus the argument that any approach to guidance can reduce general unemployment is a weak one, contingent on relatively rare circumstances.

Appraisal. The questions of whether to appraise individual characteristics, which ones to appraise, and how to appraise them are answered variously in different approaches to guidance. Logically, these answers should be linked to rationale, and usually are. Even when appraisal is not incorporated as part of a guidance system, there is generally an assumption that it has already taken place or will take place somehow at some time. Among the individual attributes that are often considered important for guidance are aptitudes, abilities and accomplishments, interests, values, physical handicaps, financial resources, attitudes, and temperaments.

Each of these domains is represented in some guidance system, although it is difficult to say whether any system includes them all: Nomenclature is sometimes fuzzy--for example, temperaments, values, and interests may be operationally defined to overlap and mingle.

Space is not available to try to resolve these perseverant "jingle" and "jangle" phenomena here. It should be noted, however, that distinctions between sometimes-confused domains have been clearly comprehended and readily used in career decision-making by 8th- and 9th-grade students (Shimberg & Katz, 1962), have been spelled out operationally at the item and inventory level (Katz, 1969), and have been substantiated through factor analysis of test and inventory scores (Norris & Katz, 1970). The tenor of such distinctions may be suggested by the following excerpt:

> If needs are regarded as basic motivating forces, values may refer to characteristic outer expressions and culturally influenced manifestations of needs. They are teleologically described, in terms of the satisfying goal or desired state that is sought rather than in terms of the motivating drive, on the one hand, or specific instrumental actions, on the other hand. More specifically, values represent feelings [and judgments] about outcomes or results, such as the importance, purpose, or worth of an [option]. Interests apply to the differentiated means by which the valued goal may be reached. They are concerned with satisfactions inherent primarily in the process rather than in the outcome of an activity. Thus, altruism and high income may be (often conflicting) occupational values. How one likes to help people or make money--by talking to groups, or repairing

> machinery, or solving mathematical problems--expresses occupational interest.
>
> Confusion occasionally appears...because the concept of interest--in the sense of engaging in an activity that is intrinsically enjoyable--may be more or less highly valued by various individuals.... In other words, the importance to an individual of doing work that is intrinsically interesting--as compared, say, with work that pays a high salary or work that helps others--is an indication of his values. The particular clusters of activities that he finds intrinsically appealing are an indication of his interests.
>
> The dimensions of interests, then, should not be mingled--in conception or in measurement--with the dimensions of values. Interest measures may be expected to identify and classify the activities that an individual finds intrinsically interesting. Such measures will not generally predict his global satisfaction in various options; they can predict only the satisfaction of his interests. When an individual has decided which clusters of activities are intrinsically interesting, he must still decide how much importance he wants to attach to satisfying intrinsic activity interest--compared, say, with such other occupational value dimensions as altruism, wealth, autonomy, and so on. For this comparison, a measure of his values is appropriate. Measures of values permit, ultimately, explicit prediction of the total satisfaction that he may derive from various options, provided that the instrumentality of each option in respect to each value can be rated. (Katz, 1969, p. 461)

Guidance models differ in the extent to which they make or recognize such distinctions between domains and also in the attention or emphasis they give to any domain.

In appraisal for guidance, confusion also prevails over the dimensions within each domain. There may be consensus on some factors used to represent a given domain, and considerable divergence on others. To illustrate from the domain of interests, sometimes so-called interest categories refer to occupational clusters ("engineering, physical sciences, mathematics, and architecture"), sometimes to types of activities ("persuasive"), sometimes to the objects of activities ("plants and animals"), sometimes to the purpose of activities ("protective"), sometimes to the setting of activities ("industrial"). Developers of some systems appear to be either totally baffled or quite unperturbed by this chaotic state; sometimes they do not even try to choose between divergent or anomalous dimensions. When they do, the divergence on interest dimensions is as wide as the extant standardized inventories. Of course, even when there is conceptual agreement on a dimension (say, scientific interest), different measures may give somewhat different results.

In guidance generally, standardized measures of aptitudes and interests have long been used. A number of factor analytic studies have identified certain reference factors that are useful in defining common and unique constructs embodied in the various measures. Still, a cursory glance at batteries and instruments shows that, aside from traditional aptitude tests (e.g., verbal and quantitative), there is little tendency towards convergence among those currently published and in wide use. Thus interest inventories may have over 100 empirically derived occupational scales, or 6 or 10 or 12 or 24 analytically or logically derived scales. Even when two inventories produce equal numbers of scales, the names of the scales and the constructs they represent will vary. Thus different instruments define the domain of interests differently. Similar observations hold for appraisal in the domain of values, and in other domains.

In addition to standardized tests or inventories, clients' own ratings are often used--sometimes quite formally, as in questionnaires or workbooks, sometimes informally, as in interviews with a counselor. To make such ratings, clients--instead of responding to many items that comprise a scale, with responses aggregated into a score on each scale--make a single response to a definition or representation of the sense of the scale.

Finally, "expert" appraisals often come into play, as counselors, admissions officers, and others make their ratings of clients' characteristics.

Information. Previous sections on scope, content, structure, style, and procedures have described how information may be collected, organized, interpreted, analyzed, and prepared for use.

In general, although the domains of appraisal and information are not isomorphic, topics included and emphasized in the information component of most (but far from all) comprehensive guidance programs tend to reflect those in the appraisal component of the same programs.

Strategies. Many approaches to guidance do not include an explicit decision-making component. Implicit in them is often the notion that students can somehow put together appraisal and information, perhaps through unstructured contemplation of the options, or "gut feelings." Such approaches reflect a vague sense that there should be some kind of match between the students' characteristics and the attributes of the occupations or other options chosen.

Other approaches provide explicit algorithms for winnowing and evaluating options. These may include regression analysis, discriminant analysis, or other decision rules, all of which are described in the context of comparisons between models in Katz & Shatkin (1980).

In view of the nearly universal tendency for computerized guidance systems to provide a capability for structured search, it is important to emphasize here a distinction between strategies for structured search and for decision-making. In the former, a list of occupations that meet certain specifications is generated. Such a list does not in itself provide a strategy for decision-making. It is no more than a set of options suggested for consideration. All specifications used have equal weight. In a similar way, all options in the data base are screened on a "go-no go" basis. A useful algorithm for decision-making, on the other hand, would permit the specifications to be weighted according to their importance, and the options would be rated on each attribute corresponding to the specifications. Then, the algorithm can produce an index of utility for each option by summing the products of its ratings and the student's weights denoting the importance of each specification. These indexes of utility take the student a giant stride further towards decision than do mere lists of occupations that "qualify" for further consideration. They can also serve to teach a process of decision-making which is capable of extended application.

Planning. Logically, planning of steps to enter an occupation would appear to follow the decision about which occupation one wants to enter. There is, however, some force to the argument that plans and decisions form a feedback loop. Sometimes a detailed appreciation of steps prerequisite or recommended for entry gives rise to second thoughts about one's resources for implementing a decision. Of course, requirements for entry are incorporated in most information systems. But these requirements are likely to be stated in general terms. They do not have the impact of step by step planning. It is one thing to see that a Bachelor's degree in engineering is required. But a detailed listing of programs and courses that would have to be taken to complete that degree may give the client pause. Also, as Freedman and Dutka (1980) point out, a mere listing of alternative pathways often fails to make clear which one is preferred or more likely to be productive. Furthermore, planning involves knowledge not only of the requirements for entry into an occupation, but also of available resources and assistance, such as special tutoring, financial aid, and the like.

Models of Guidance for Career Decision-Making

Designation of three of the topics just discussed owes a debt--like much else in the field of guidance--to the pioneering work of Frank Parsons at the dawn of the vocational guidance movement. In Choosing a Vocation (published posthumously in 1909) Parsons invoked a triad of activities that he believed should comprise vocational guidance: analysis of the individual, study of occupational information, and "true reasoning" to establish connections between the other two domains (Parsons, 1909). On the face of it, this does not seem far removed from many current trait-matching conceptualizations of the guidance process. But as pointed out in Katz and Shatkin (1980), Parson's application of these activities put major emphasis on information and advice from a knowledgeable and wise person--the counselor.

Katz and Shatkin (1980) go on to compare four distinct models that represent differences in rationale, appraisal, occupational information, strategy for decision-making, prerequisites for effectiveness and criteria for evaluation. The chart summarizing those models reproduced as Table 39, is repeated here as a matter of convenience; it is not, however, a substitute for the accompanying text, which is incorporated here by reference. The four models are (A) Parsons, (B) Selection for Success, (C) Resemblance to Membership, and (D) Developing Understanding and Competence in career decision-making (CDM).

While theory in the field of guidance for career decision-making seems to have moved under the umbrella of D, with emphasis on developing individual freedom, understanding, competence, and satisfaction, bringing to bear techniques of information-processing and decision theory (cf. Pitz & Harren, 1980), it is the impression of the authors that most information resources today still tend to fall under B and C.

Summary

In this chapter, we have considered a number of ways in which occupational information resources vary, have made some analyses of their validities, and have ventured critical judgments about their quality. We have reported some aspects of quality from the perspective of school guidance and career education staffs, a few from the perspective of students, and many others from the perspective of logical analysis. In short, we have examined various facets of the major resources from various points of view. To summarize the results of this examination would be repetitive; to synthesize them may be impossible; perhaps instead we may comment on a few of the highlights for selected classification variables.

Scope, Content, and Perceived Usefulness

Since counselors indicate that they direct students to occupational information (Question 4, School Questionnaire, see Table 49, Chapter V) and indeed see such referrals as the most effective method of getting students to use occupational information (Question 2, see Table 82, Chapter X), one significant classification variable is their perception of the usefulness of various resources for various purposes and topics.

First, it is noteworthy that school respondents (mostly guidance counselors) tended to identify such a small number of resources for a wide variety of purposes and topics. In absolute terms, the OOH was by far the most frequently chosen resource. This is not surprising, since the OOH was most frequently present. But even in relative terms--that is, the proportion of respondents choosing a given resource when that resource was available in their school--the OOH tended to be very popular, usually second only to computer-based information systems. The latter were present in a relatively small proportion of the schools, almost certainly a biased sample, and represent a certain degree of conspicuous commitment. Thus the frequency with which a computer-based system was chosen for various purposes and topics must be interpreted with due caution. We must also wonder how this choice by counselors squares with the indication that terminals were in use only a fraction of the time they were available. Nevertheless, the degree to which computer-based systems were preferred by counselors is, on the face of it, quite impressive.

Gaps, real and perceived. The failure of resources to be chosen with great frequency when they appeared to be appropriate is also noteworthy. For example, one would expect courses in career planning, occupational units in subject classes, and career days to show up very frequently for the purpose of arousing students' interests in exploring occupational information generally. Why didn't they? Perhaps more to the point, in which schools have they been successfully used for this purpose, and what differentiates such schools from the others? Similarly, why did publications from professional associations, books on single occupations, and audiovisual materials turn up so infrequently as sources of detailed information about an occupation with which students are already familiar? Audiovisual materials did appear with substantial frequency (although not greater than computer-based systems) as resources for poor readers, but an even greater number of respondents were at a loss to designate *any* resource for this purpose. Why did respondents tend to avoid mentioning career days, site tours, and other observational and experiential resources not dependent on reading? Why did they also neglect first-hand observation and experiential activities as resources for learning about the work environments in various occupations? Why were conferences with community representatives--although readily available--disregarded as a source of information on up-to-date local wage and salary information?

Other perceived gaps--besides materials for poor readers--were also notable and generally unexceptionable: substantial proportions of respondents named no resource for occupational information on such topics as security and job tenure, opportunities for helping others, accessibility of occupations to the handicapped, up-to-date local wage and salary data, and lists of titles meeting multiple specifications.

Most valuable resources. Respondents' designation of the *OOH* and computer-based systems as the most frequently preferred resources (of those available) for a variety of purposes and topics was confirmed by their over-all evaluation. Computer-based systems were also favored as a resource to be added if budgets permitted. (The *OOH* does not appear here because of a ceiling effect: it is already ubiquitous.)

There is ample evidence, then, that on this classification variable--respondents' perception of usefulness for a variety of purposes (scope) and topics (content)--the *OOH* and the computer-based systems are the exemplars, although they are also seen to leave serious gaps in scope and content.

Standard and Fluid

Further classification on content is provided by checklists: Tables 10 and 11 for specific publications, 12 and 13 for specific computer-based systems, and 15 for three VIEW systems. Such lengthy checklists are too cumbersome to continue through an extensive classification system for all resources. But seeking to reduce the array of resources suggests another classification variable: Those just mentioned can all be called standard resources, in the sense that each resource is essentially the same wherever it is used--that is, the same information is circulated in standard form to all schools using the OOH, the DOT, GIS, CIS, or a state VIEW. Other resources--such as occupational information units in classes, work experience, career days, job site tours, and conferences with community representatives, counselors, teachers, or parents--can be called fluid resources, in the sense that they may take different shapes and directions from one school to another. Audiovisual materials tend to be bought or rented in various combinations and are therefore collectively fluid, even though each specific item is standard. (Since the genus AV was named infrequently for any purpose or topic, except for use by poor readers, there was no need to consider any specific audiovisual item.) In so far as the fluid resources vary greatly from one school to another, little can be said here about their quality, although effects of representative versions of them will be considered in Study 2.

Classification of resources as standard or fluid is particularly useful at this point in our review of quality because it offers a way out of the further extension of tedious and cumbersome checklists begun in Tables 10-15. The way out is to reduce the number of resources considered on additional classification variables. Previous classification by availability and usefulness, followed by classification as standard or fluid, permits a sharp cut in the number of resources to be classified on the remaining variables. In short, sequential rather than concurrent classification has allowed the remainder of this review to focus mainly on the OOH, the DOT, GIS, and CIS--all standard resources that were regarded as most useful and valuable for a variety of purposes and topics.

Structure

Structure determines the nature of the linkages between individual characteristics and occupational attributes. Publications, like the OOH and the DOT, permit occupations and topics to be accessed in fixed linear order. For example, occupations are clustered according to a single characteristic or a fixed set of characteristics. Computer systems allow for more flexible access; occupations can be clustered according to any set of specifications chosen by the user (from whatever dimensions are incorporated in the system). In other words, a given occupation is not destined always to be associated with a certain array of other occupations: It can move from one cluster to another, depending on the specifications for search. A computer system also allows topics to be addressed in a more flexible sequence. The recent Department of Labor publication, Guide to Occupational Exploration (a supplement to the DOT), serves to illustrate the perils of fixed clusters accessed through a hierarchic structure. Since occupations may overlap in some attributes and differ in others, no single structure or classification system is satisfactory. A more rational structure with flexible access also makes allowance for the lack of isomorphism between the domains of individual differences and the domains of occupational attributes. The linkages between interests and activities, between abilities and requirements, between values and opportunities for rewards and satisfactions are useful but far from a perfect fit ("not like a square peg in a square hole, but more like the fit of a person to a park bench"). Therefore simplistic linkages (such as are made by the DOT, GIS, and CIS) based on dichotomous categories such as "having" or "not having" a given attribute are often misleading, particularly since an "occupation" is itself a central tendency, a generalization in which some information is lost for the sake of a gain in summary power. Of the resources considered, the GOE is most explicit about its own structure. None of the resources, however, goes beyond attempting to make a particular match between individual and occupational characteristics at a given time: that is, none tries to help decision-makers understand principles of structure that they can apply on their own, "off line," as it were.

Style

In one feature of style, interactivity, computer-based systems are generally superior to publications. Neither GIS nor CIS, however, would rank at the top of a scale of interactivity. Both are somewhat cumbersome in requiring reference to off-line codes rather than conducting all communication on line. Structured search for occupations that meet students' specifications is the most interactive feature of each. In direct access the computer serves as a page turner. Use of a teletype terminal for GIS and CIS slows down communication to about a fourth of the common capabilities of a cathode-ray tube terminal. It encumbers the student with a considerable amount of dead time waiting for a message to be typed out. It also precludes use of graphics.

Although the OOH is quite readable and provides some pictures, none of the materials considered here can be classified as vivid or memorable. No trace of imagination or humor is to be seen.

The computer-based systems are slightly more comprehensible than the publications, according to students' responses, but the majority of students who used any of these resources said they did not find the information hard to understand.

Procedures

Procedures can be classified in terms of the extent to which they are explicit, logically consistent, supported by research, thorough, discriminating in choice of sources, and timely. The DOT merits good marks on most of these variables for procedures that underlie the definitions. For example, the Handbook for Analyzing Jobs spells out explicitly ways of observing and defining jobs, and the resultant definitions are both concise and consistent, although one can cavil at decisions about which titles to include. More serious criticisms are directed at the hierarchic scales representing levels of skill in dealing with Data, People, and Things. These scales are inconsistent, lacking parallelism, and could be improved by telescoping into three levels, by adding a higher skill to the Things category, and by developing a comprehensive thesaurus of verbs for work activities at each level in each category.

The supplement on interests (the GOE) and data display tape on aptitudes and temperaments warrant even more severe criticism. Both the interest and temperament domains are ill-conceived and ill-defined. While the recent revision (*GOE*) corrects the absurdity of bipolar interest dimensions, logical and semantic confusion persists. Placing each occupation categorically in a single interest field rather than rating it on a continuous scale, and thereby allowing it to appear in more than one field, reveals an egregious oversimplification and misconception of the relationship between human interests and occupational activities.

No rationale is given for the construction of the temperaments domain. Some of the dimensions are badly confused--to the extent that language in the definition of one dimension overlaps the title of another. Both GIS and CIS mindlessly mingle, mangle, and merge temperaments from the *DOT Data Display Tape*, thereby making a bad situation worse.

The derivation of the *DOT* aptitude categories, unlike the temperament dimensions, is clear, derived essentially from the GATB dimensions. While fault can be found with USTES procedures for deriving OAP's--particularly the use of multiple cutting scores--they represent for the most part a reasonable compromise between scientific rigor and pragmatic expedience. (A more fundamental reservation would apply to the utility of the GATB measures for *guidance* as opposed to selection.) Unfortunately, the massive research base for GATB is largely abandoned or compromised in the *DOT* tape, which is used by both GIS and CIS. The consequence is that judgments of the kind and level of aptitude required to "qualify" for various occupations often run counter to the research data reported by USTES. CIS also defines the aptitude domain differently under direct access from the way it is defined under structured search. VIEW systems also construe "aptitude" chaotically. Procedures for defining and applying constructs of aptitude are, in short, lacking in rigor, clarity, consistency, and logic in all these resources.

Just as the *DOT* has been a major source for information on job definitions, physical demands, working conditions (all of which it handles well), aptitudes, temperaments, interests, and levels of skill in Data, People, Things (in all of which it is deficient), the *OOH* has been the major source of information about outlook. While projections of growth for specific occupations have been moderately accurate for large occupations, less so for small ones, the major component of demand is the replacement rate rather than growth. This being the case, it would seem appropriate to deemphasize projected growth rates in *OOH* write-ups (which are now somewhat misleading) in favor of focus on total number of openings expected in each occupation. Improved procedures are clearly needed for the supply side. But in general the *OOH* is a commendable source of state-of-the-art information about outlook, particularly in view of its apparent commitment to improved procedures. Of the classification variables mentioned at the beginning of this section, the most troublesome is timeliness. The biennial publication schedule plus the inevitable lag between data collection and publication makes for often tantalizing obsolescence, not only in outlook but also in such data as earnings and the addresses of "sources of additional information." Greater thoroughness in providing information about various facets of earnings is also needed. Insufficient use has been made by all of these resources of procedures established elsewhere for obtaining, analyzing, developing, and providing information about nonpecuniary rewards and satisfactions associated with occupations. An additional approach to data collection has been suggested in the concluding section of the discussion of procedures.

Costs

Special attention is paid to cost as a function of use. Nothing is so costly as a resource that gathers dust through desuetude. It appears from the questionnaire responses that the OOH is the most widely used resource nationally for the greatest variety of purposes and topics. It is also probably the least expensive of all resources. If a school could not afford anything else, the one indispensable affordable resource would be the OOH.

Effects

Since effects of resources are the subject of Study 2, they are passed over in this paper. Effects can include several dimensions: attitudes, knowledge, competencies, behaviors. It is difficult to disentangle effects of resources per se from the total school context in which their use is embedded: "school" effects may be expected often to outweigh the effects of specific resources.

Rationales for Intervention

Information is one component of a model of guidance for career decision making, which in turn depends on an underlying rationale of guidance and philosophy of education, which derive in their turn from social and cultural norms. It is necessary to attend not only to the common benefits but also to the tensions that occur between the societal stake and the individual stake in the rules that govern selection and choice at various transition points in career development. Social concerns include competence and productivity in work, a nice balance between supply and demand in labor markets, equity for access and mobility. Individual concerns focus on rewards and satisfactions from work. Manpower models may be more congenial to government policy, guidance models to individual decision making. Incentives in the former assume a single optimization rule for requirements, qualifications, and rewards; in order for society to "win," individuals become "winners" and "losers" in a zero-sum game. A guidance view when individual concerns are paramount is that requirements, qualifications, and rewards are multidimensional: then variation in the importance that different individuals attach to different values means that they can "win" in different ways. Thus manpower models are not optimal for individual benefits when (1) individuals are multipotential, (2) they vary considerably in their values, (3) occupational requirements are flexible, (4) opportunities for rewards and satisfactions tend to vary considerably from one occupation to another, and (5) individual autonomy in decision making is cherished. The fifth point requires that individuals be informed about rewards and risks, be willing to assume responsibility for making their own choices, and be able to develop the prerequisite competencies in decision making.

Very few resources are explicit about their underlying rationales. But the way in which a resource deals with such components of guidance as appraisal, information, strategies, and planning often tends to suggest an implicit model. Four such models are explicated, including advice from a wise person, selection for success, resemblance to membership, and development of understanding and competence in career decision making. Theorists have tended to move in recent decades toward the fourth of these, with emphasis on developing individual freedom, understanding, and competencies, and on attaining satisfaction from work. This model antedates but incorporates research on decision theory and information-processing. The computer-based resources reviewed here, however, while vague about decision-making strategies, tend in their approach to appraisal and information to follow implicitly the models called selection for success and resemblance to membership. Not explicitly, for they are atheoretical; not rigorously, for they shun research methods and data; not consistently, for they tend toward expedience and opportunism in their use of the *DOT* tape. The *OOH*, perhaps eclectic in the breadth of information it includes, leans toward a manpower model in its undue emphasis on projected growth rates for outlook.

Table 16

Resources Recommended for Arousing Student Interest in Exploring Occupational Information

	Resource	National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	12.10	13.5
K4	Career days, speakers, etc.	6.29	9.1
H2	Externally produced AV	5.70	7.5
G6	State computer system	5.22	43.7
I1	State or regional microfilm	4.60	10.6
G5	GIS	4.39	38.3
K2	Occ. units in subject matter classes	3.74	6.2
K1	Courses in career planning	3.61	9.3
C1	Career World	3.12	6.8
B5	SRA briefs	2.78	6.4

Table 17

Resources Recommended for Familiarizing Students with Occupations

	Resource	National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	24.84	26.2
A2	Dictionary of Occupational Titles	8.49	10.5
K4	Career days, speakers, etc.	4.78	7.2
I1	State or regional microfilm	4.65	9.3
K2	Occ. units in subject matter courses	4.35	7.0
B4	Chronicle guidance	3.91	7.7
H2	Externally produced AV	3.89	5.3
A4	Encycl. of careers and voc. guidance	3.89	8.0
K1	Courses in career planning	3.37	8.7
B5	SRA briefs	2.97	7.1

Table 18

Resources Recommended for Detailed Information About a Familiar Occupation

	Resource	National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	16.79	18.8
B4	Chronicle guidance	8.51	16.3
I1	State or regional microfilm	5.91	12.9
A2	Dictionary of Occupational Titles	4.97	6.1
G6	State computer system	4.33	35.7
A4	Encycl. of careers and vocational guidance	3.38	6.9
G5	GIS	3.30	30.8
K4	Career days, speakers, etc.	2.93	3.7
B5	SRA briefs	2.90	6.5
B11	Pamphlets of prof. associations	2.59	3.9

Table 19

Resources Recommended for Suggesting Unfamiliar Occupations

	Resource	National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	17.69	19.1
A2	Dictionary of Occupational Titles	6.37	7.8
B4	Chronicle guidance	3.75	7.9
G5	GIS	3.71	30.4
G6	State computer system	3.71	30.5
I1	State or regional microfilm	3.67	8.1
A4	Encycl. of careers and voc. guidance	3.66	7.0
M1	Conferences with counselors	3.58	4.1
B5	SRA briefs	2.78	6.0
B2	Careers, inc.	2.58	6.8

Table 20

Resources Recommended for Poor Readers

Resource		National estimate	Percent based on schools with resource
H2	Externally produced AV	15.18	21.8
I1	State or regional microfilm	4.46	10.0
M1	Conferences with counselors	4.40	4.4
K4	Career days	4.16	5.7
A1	Occupational Outlook Handbook	3.80	3.9
C1	Career World	3.20	7.1
G6	State computer system	2.97	23.9
B5	SRA briefs	2.79	7.6
B2	Careers, inc.	2.77	8.1
G5	GIS	2.36	20.9

Table 21

Resources Recommended for Selection of Suitable Programs by College-Bound Students

	Resource	National estimate	Percent based on schools with resource
F1	College directories by occupation	40.83	58.1
M1	Conferences with counselors	6.15	6.5
G5	GIS	5.63	51.8
F2	Vocational school directories	4.09	5.7
G6	State computer system	3.34	30.0
F4	Other educational directories	3.22	28.9
A1	Occupational Outlook Handbook	3.10	2.9
I1	State or regional microfilm	2.01	5.0
K4	Career days, speakers, etc.	1.78	2.0
B4	Chronicle guidance	1.48	2.7

Table 22

Resources Recommended for Helping Noncollege-Bound Students Select Programs

	Resource	National estimate	Percent based on schools with resource
F2	Vocational school directories	37.41	49.7
M1	Conferences with counselors	6.82	7.2
G6	State computer system	3.62	31.5
A1	Occupational Outlook Handbook	3.59	4.2
G5	GIS	3.26	31.6
F4	Other educational directories	2.95	26.8
I1	State or regional microfilm	2.60	6.5
K4	Career days	1.50	2.1
A4	Encycl. of careers and voc. guidance	1.47	2.7
B4	Chronicle guidance	1.21	1.8

Table 23

Resources Recommended for Information About Entry Requirements

Resource		National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	39.03	42.6
A2	Dictionary of Occupational Titles	6.73	8.4
I1	State or regional microfilm	5.89	13.8
B4	Chronicle guidance	4.63	9.4
G6	State computer system	4.45	35.7
A4	Encycl. of careers and voc. guidance	3.10	6.7
G5	GIS	2.98	27.7
B5	SRA briefs	2.53	5.6
B10	Occupational briefs published by state	1.72	3.4
B2	Careers, inc.	1.35	4.4

Table 24

Resources Recommended for Information About Employment Outlook

Resource		National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	55.25	59.7
C3	Occupational Outlook Quarterly	5.59	11.0
G6	State computer system	3.88	31.9
I1	State or regional microfilm	2.96	7.4
G5	GIS	2.66	24.1
B10	Occupational briefs published by state	2.52	5.9
C2	Occupations in demand	1.41	14.4
B4	Chronicle guidance	1.29	2.2
A2	Dictionary of Occupational Titles	1.20	1.5
A10	Other bound references	1.11	9.0

Table 25

Resources Recommended for Information About Aptitudes, Abilities, and Skills

Resource		National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	24.06	26.6
A2	Dictionary of Occupational Titles	10.55	12.7
B4	Chronicle Guidance	7.14	14.3
I1	State or regional microfilm	6.92	15.6
G6	State computer system	4.47	36.2
B5	SRA briefs	3.54	7.6
G5	GIS	3.25	30.0
A4	Encycl. of careers and voc. guidance	3.13	8.0
B2	Careers, inc.	1.95	6.3
B10	Occ. briefs published by state	1.83	3.5

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Table 26

Resources Recommended for Information About Work Activities

	Resource	National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	27.94	30.6
A2	Dictionary of Occupational Titles	10.94	13.1
B4	Chronicle guidance	8.07	16.4
I1	State or regional microfilm	5.24	12.0
G6	State computer system	4.16	34.7
B5	SRA briefs	3.94	8.6
A4	Encycl. of careers and vocational guidance	3.84	8.2
G5	GIS	3.28	27.7
B2	Careers, inc.	2.08	6.3
B9	Vocational biographies	1.76	7.8

Table 27

Resources Recommended for Information About the Work Environment

Resource		National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	29.28	31.7
B4	Chronicle guidance	8.02	15.3
I1	State or regional microfilm	4.69	10.6
A2	Dictionary of Occupational Titles	4.60	5.9
G6	State computer system	3.70	30.5
A4	Encycl. of careers and voc. guid.	3.32	7.3
B5	SRA briefs	3.26	7.1
G5	GIS	2.75	24.1
H2	Externally produced AV	2.55	3.3
B2	Careers, inc.	1.83	5.8

Table 28

Resources Recommended for Information About Job Security

	Resource	National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	29.94	32.9
B4	Chronicle guidance	4.79	9.0
I1	State or regional microfilm	3.68	8.5
A4	Encycl. of careers and voc. guid.	2.56	5.0
A2	Dictionary of Occupational Titles	2.30	2.6
G6	State computer system	2.28	20.2
B5	SRA briefs	2.19	4.3
C3	Occupational Outlook Quarterly	2.12	4.4
B10	Occupational briefs published by state	2.08	4.3
K9	Conferences with community representatives	1.74	4.1

Table 29

Resources Recommended for Information About Opportunities for Helping Others

Resource		National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	15.89	16.4
B4	Chronicle guidance	3.69	7.1
G5	GIS	3.38	28.5
A2	Dictionary of Occupational Titles	2.85	3.4
I1	State or regional microfilm	2.54	6.1
A4	Encycl. of careers and voc. guid.	2.46	5.5
B5	SRA briefs	2.30	4.8
G6	State computer system	2.14	18.3
M1	Conferences with counselors	1.51	1.7
B10	Occupational briefs published by state	1.40	3.0

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Table 30

Resources Recommended for Information About Accessibility to the Handicapped

	Resource	National estimate	Percent based on schools with resource
A6	Employment opportunities for handicapped	11.07	112.7
A1	Occupational Outlook Handbook	6.23	5.7
K9	Conferences with community representatives	1.57	4.1
K10	Other school-arranged experience	1.54	13.8
I1	State or regional microfilm	1.51	3.8
G5	GIS	1.42	12.6
G6	State computer system	1.40	12.7
M1	Conferences with counselors	1.38	1.6
B4	Chronicle guidance	1.30	2.5
B10	Occupational briefs published by state	1.04	2.6

Table 31

Resources Recommended for Information About Up-to-Date Local Wages and Salaries

Resource		National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	10.72	10.7
I1	State or regional microfilm	9.57	24.8
B10	Occupational briefs published by state	6.61	17.2
G6	State computer system	6.03	52.1
C3	Occupational Outlook Quarterly	4.39	8.1
K9	Conferences with community representatives	3.55	8.9
G5	GIS	2.65	22.5
C6	Other periodicals	2.63	34.0
K4	Career days, speakers, etc.	1.97	2.3
C2	Occupations in demand	1.87	17.6

Table 32

Resources Recommended for Information About Occupations That Meet Students' Specifications

Resource		National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	17.18	18.9
G5	GIS	5.60	49.0
G6	State computer system	5.56	46.0
I1	State or regional microfilm	4.65	11.2
B4	Chronicle guidance	3.00	5.7
A2	Dictionary of Occupational Titles	2.38	2.8
J1	Keysort or needlesort	2.37	12.3
B10	Occupational briefs published by state	2.15	4.7
A4	Encycl. of careers and vocational guidance	1.62	3.0
B5	SRA Briefs	1.54	3.8

Table 33

Resource Deemed Most Valuable

	Resource	National estimate	Percent based on schools with resource
A1	Occupational Outlook Handbook	33.30	35.9
I1	State or regional microfilm	6.79	15.4
G6	State computer system	5.92	49.8
B4	Chronicle guidance	5.61	12.0
G5	GIS	5.23	48.6
M1	Conferences with counselors	4.96	5.3
A2	Dictionary of Occupational Titles	3.60	4.0
A4	Encyl. of careers and vocational guidance	2.51	5.3
F1	College directories arranged by occupation	2.45	3.6
B5	SRA briefs	2.32	4.3

Table 34

Resources Most Desired If Funds Were Available-- Percent of Stratum and Percent of Schools Lacking the Resource

Stratum 1 (N = 540)			Stratum 2 (N = 668)			Stratum 3 (N = 686)		
Resource	% Schls. in the stratum	% Schools without the resource	Resource	% Schls. in the stratum	% Schools without the resource	Resource	% Schls. in the stratum	% Schls. without the resource
G3	9.81	10.15	A2	2.40	11.03	G5	12.39	15.51
K1	4.63	7.72	A4	4.19	6.90	H2	2.19	9.09
B5	3.52	6.64	G5	6.29	6.71	I1	4.66	7.71
G5	4.81	5.57	G3	6.29	6.35	G3	7.43	7.68
I1	3.52	5.51	G6	5.54	6.21	K1	4.08	7.29
A4	2.41	4.85	G2	5.99	6.00	G2	4.96	5.07
G2	4.63	4.78	C1	3.14	5.10	G6	4.23	4.97
C2	3.70	4.09	I1	2.99	5.06	B5	2.33	4.31
A6	3.52	4.08	K1	2.84	4.60	A6	3.50	4.07
B2	2.41	3.67	A3	2.40	2.67	L1	2.48	3.08

Resources

A2	Dict. Occ. Titles
A3	Guide for Occ. Exploration
A4	Encyc. Careers & Voc. Guid.
A6	Empl. Oppy's. for Handicapped
B2	Careers, Inc.
B5	SRA Briefs
C1	Career World
C2	Occup. in Demand
G2	COIN
G3	CVIS
G5	GIS
G6	State comp. system
H2	Extern. produced AV
I1	State or regional microfilm
K1	Courses in career planning
L1	Simulations

Table 35

Satisfaction in Amount of Information Retrieved from Publications, Computers, Microfiche, and Card Sorts

Amount Retrieved	Publications (N = 3474)	Computers (N = 596)	Microfiche (N = 556)	Card sorts (N = 625)
All that was desired	13[a]	23	15	12
Most	50	53	52	49
Some	35	23	32	37
None	2	1	2	2

[a] Percent of those responding

Table 36

Comprehensibility of Information Received from Publications, Computers, Microfiche, and Card Sorts

Response to the question, "Was information hard to understand?"	Publications (N = 3348)	Computers (N = 568)	Microfiche (N = 520)	Card sorts (N = 585)
Yes	2[a]	4	4	4
Sometimes	32	26	23	30
No	66	71	73	66

---

[a] Percent of those responding

135

Table 37

Satisfaction in Amount of Information Retrieved from
Publications, Computers, Microfiche, and Card Sorts

Amount Retrieved	Resource											
	Publications			Computers			Microfiche			Sorting Cards		
	Stratum 1 (N = 1158)[a]	Stratum 2 (N = 1159)	Stratum 3 (N = 1226)	Stratum 1 (N = 182)	Stratum 2 (N = 144)	Stratum 3 (N = 280)	Stratum 1 (N = 173)	Stratum 2 (N = 152)	Stratum 3 (N = 241)	Stratum 1 (N = 211)	Stratum 2 (N = 209)	Stratum 3 (N = 213)
All that was desired	13[b]	13	12	19	24	24	14	14	15	13	11	12
Most	49	50	49	55	49	51	46	57	52	47	49	48
Some	34	35	35	21	24	23	34	28	31	37	39	35
None	2	1	2	2	1	1	2	1	1	1	0	5

[a] Includes a small number of "No responses"

[b] Percent

Table 38

Comprehensibility of Information Received from Publications, Computers, Microfiche, and Card Sorts

Was information difficult?	Resource											
	Publications			Computers			Microfiche			Sorting Cards		
	Stratum 1 (N = 1109)[a]	Stratum 2 (N = 1131)	Stratum 3 (N = 1180)	Stratum 1 (N = 175)	Stratum 2 (N = 139)	Stratum 3 (N = 275)	Stratum 1 (N = 162)	Stratum 2 (N = 149)	Stratum 3 (N = 236)	Stratum 1 (N = 205)	Stratum 2 (N = 207)	Stratum 3 (N = 201)
Yes	3[b]	2	2	4	3	4	4	4	3	5	2	4
Sometimes	30	32	31	28	29	20	22	19	23	26	30	29
No	66	63	65	64	64	73	69	71	69	64	65	60

[a] Includes a small number of "No responses"

[b] Percent

TABLE 39

FOUR APPROACHES TO CAREER GUIDANCE

	A. Parsons	B. Selection for Success	C. Resemblance to Membership	D. Understanding & Competence in CDM
1. Purpose or objectives (implicit or explicit)	Choose occupation to maximize success and *therefore* satisfaction of individual and benefit to society.	Prevent waste & inefficiency in preparation by basing choice on differential prediction of success. Improve over-all productivity.	Prevent waste & inefficiency, maximize satisfaction, by basing choice on resemblance to membership in occupation. Increase homogeneity of membership.	Learn career decision-making process to achieve individual satisfaction; make plans that take into account preparatory requirements and probabilities of entry.
2. Appraisal of individual	Counselor's observation and judgment during interview.	Standardized test battery, emphasizing differential aptitudes--off-line. (e.g., Air Force selection, GATB.)	Standardized tests and/or inventories, often emphasizing interests--off-line. (e.g., Strong, Holland, TALENT.)	Individual's informed self-appraisal of values, interests, abilities--interactive.
3. Occupational information	Counselor's knowledge, experience, impressions.	Job analysis to classify occupations by aptitudes and to specify requirements or criteria for success in each occupation. (e.g., Air Force, Shartle, Minn. Employment Stabilization.)	Differentiated characteristics (antecedent or concurrent) of members of each occupation--usually involving scores on same instrument as in (2), above. (e.g., Strong, TALENT.)	Systematic multi-dimensional analysis of opportunities for satisfaction--i.e., "instrumentality" of each occupation on each dimension.
4. Articulation between (2) and (3) above--for "choice" or decision-making.	Counselor's judgment--i.e., "true reasoning" by counselor.	Counselor's judgment linking aptitude scores to occupations, or regression analysis--equation using predictor variables, from (2) above, selected and weighted optimally to predict success as specified by criterion, from (3) above.	Counselor's judgment linking interest scores to occupations, or discriminant analysis--showing degree of individual's resemblance to membership of various occupations differentiated by the characteristics measured.	Algorithm for combining individual's weighting of each value with rating of occupation's instrumentality--produces index of "desirability"; decision rules for adjudicating between desirability and risks.
5. Effectiveness depends on data showing	counselor's omniscience and wisdom.	differential validities (which depend, in part, on relatively low correlations between criteria--i.e., differentiated requirements for success in various occupations--and relatively low correlations between predictor composites for various occupations).	differentiated distance of individual from various occupational memberships such that probability of resemblance vs. dissimilarity can be discerned at useful level of confidence.	differentiated opportunities for satisfaction in various occupations consistent with differentiated profiles of examined values.
6. Evaluated by (a) short-term (b) long-term	(a) clients' acceptance of counselor's judgment; (b) later success and satisfaction in occupations chosen.	(a) clients' choices of occupations offering highest probabilities of success; (b) later success in occupations on criteria specified in (3) above.	(a) "hit" ratio: clients' choices of occupations whose members they most closely "resemble"; (b) persistence in occupations so chosen.	(a) & (b) clients' competencies in cdm--e.g., understanding of own values, comprehensive specifications sought from occupations, knowledge of relevant occupational information, accurate interpretations of comparative probabilities of success in various preparatory programs. Choices of occupations consistent with desirabilities and risks.

EXHIBIT II-5

RATING CATEGORIES AND THESAURUS FOR DATA/PEOPLE/THINGS

Data/Ideas*

---

0 Synthesizing (to develop knowledge)
1 Coordinating
2 Analyzing

HIGH
"drawing conclusions"

Adapt
Apply principles
Arbitrate
Calculate
Classify
Decide
Design
Develop ideas
Diagnose
Discuss ideas
Do research
Estimate
Evaluate
Explain
Forecast trends
Integrate
Interpret
Investigate
Make policy
Organize
Originate
Plan
Predict
Solve problems
Study
Survey
Translate ideas into artistic performance
Translate ideas into practical application
Write reports, directions or specifications
Edit (revise)
Translate

---

3 Compiling
4 Computing

MEDIUM
"performing prescribed actions"

Apply information
Assist--carry out instructions
Check
Collect facts, information, data (survey)
Fill out reports
Follow diagrams
Handle applications
Enforce standards
Memorize
Supply information
Transcribe
Use maintenance manual

---

5 Copying
6 Comparing (checking)

LOW
"observing or copying"

File reports
Keep files
Keep log
Record observations/transactions
Review
Verify

Not related to work activities

---

*Numbered words are taken from the Dictionary of Occupational Titles, 1977. Appendix p. 1369-1371.

Figure 1. Illustration of how a thesaurus of verbs might be developed for categorizing work activities at three levels: high, medium, and low. (From Pears and Weber, 1980, pp. 81-83.)

EXHIBIT II-5 (cont.)

People*

---

0 Mentoring (counseling)
1 Negotiating
2 Instructing
3 Supervising (maintaining harmony)
4 Diverting
5 Persuading

HIGH
"changing behavior, giving advice or instructions"

Advise
Consult
Counsel
Guide
Cure
Direct
Employ
Entertain
Evaluate
Influence
Be responsbile for
Instruct (teach)
Lead
Arrive at joint decisions (confer)
Modify behavior
Order
Prescribe for
Rate
Rehabilitate
Remedy
Resolve disputes

---

6 Speaking-Signaling (giving instructions to helpers)

MEDIUM
"cooperating, exhanging information"

Answer inquiries
Assist
Confer (discuss)
Correspond with
Examine people or animals
Inform
Interview (using prepared questions)
Notify
Observe
Participate in team effort
Protect
Refer
Represent employer
Rescue
Treat (minor cases)

---

7 Serving (attending to immediate needs)
8 Taking instructions-Helping

LOW
"following other people's orders"

Serve the buying public
Visit
Greet
Guard

Little direct interaction with people as part of work activity.

---

* Numbered words are taken from the Dictionary of Occupational Titles, 1977. Appendix p. 1369-1371.

EXHIBIT II-5 (cont.)

Things*

---

0 Setting-up
1 Precision working

HIGH
"using considerable judgment & knowledge combined with a high level of manipulative dexterity"

Build
Calibrate
Construct
Create
Design (SIGI addition)
Draft (detailed sketches)
Experiment
Fabricate
Identify complex objects
Invent (SIGI addition)
Make
Trouble shoot
Use precision tools & equipment

---

2 Operating-controlling
3 Driving-operating
4 Manipulating

MEDIUM
"some latitude for judgment and moderate dexterity"

Adjust
Arrange
Combine
Cultivate
Drive
Examine equipment
Inspect
Install (routine)
Modify
Overhaul
Purchase equipment
Regulate
Repair
Test equipment
Type
Use simple tools or equipment

---

5 Tending
6 Feeding-offbearing
7 Handling (moving or carrying objects)

LOW
"little judgment or manipulative dexterity needed (push buttons or keys; monitor lights or dials; do minor repairs. Use pencil, paper, telephone, common devices.)"

Carry
Monitor
Make monor repairs
Pass to someone else

Not related to work activity.

---

*Numbered words are taken from the Dictionary of Occupational Titles, 1977. Appendix p. 1369-1371.

CHAPTER IV

RESEARCH QUESTION A3

Research Question a3 is "What types of schools have what types and quality of career information resources?" The matter of the quality of the resources has already been discussed in Question a2. No new findings about quality emerge from the analysis of school type versus career resource type. Therefore in the following analysis the matter of quality has been dropped from the question.

Analysis Strategy

A convenient way to characterize the demographic aspects of schools is to examine their responses to six questions on the school questionnaire. Examination of the marginal distributions on each of the six questions revealed reasonable places to cut each variable, thus yielding six binary categories of school characteristics as follows:

1) Enrollment in 10+11+12 grades $\geq$ 750 = 1
Otherwise = 0

2) Majority of students in an academic program = 1
Otherwise = 0

3) Majority of students are white = 1
Otherwise = 0

4) Dropout rate $\leq$ 14% = 1
Otherwise = 0

5) Counselors $\geq$ 4 full-time equivalent = 1
Otherwise = 0

6) Head of guidance = 1
Otherwise = 0

Delivery systems can also be characterized through responses to six binary questions as discussed later, thus providing the framework for studying school type versus resource type.

Thus there are 64 (2^6) possible categories of school type, allowing an answer to the first half of the research question, "What types of schools are there?" There are also 64 categories of delivery system types. Thus the answer to the research question involves looking at a 64-by-64 cell contingency table. Such a table has 4096 cells, and it is clear that unless there is a very strong structure (i.e., many schools group together in a very few of those cells) there is little to discover. There are also three sampling strata that characterize school types further still, yielding a possible 64-by-64-by-3 contingency table with more than 12 thousand cells.

School Types

Obviously such a table is too complex to work with. The first place to look for simplicity is the structure of schools. Examining all 64 possible cells (grouped across strata for a first look) reveals that very few school "types" account for the vast preponderance of schools. The most populous cell contains 258 schools; that is, there are in the sample 258 schools all of the same type as determined by the criteria described above. Another cell contains 201 schools, another 183, another 161, another 109, and so on. Three cells are empty and six contain only one school. It is clear that many schools are embraced by a few types, telling us that there is a simple structure and that very few school "types" contain a very large number of schools. The twenty most popular types are shown in Table 40 and they account for more than 80 percent of the schools (in fact only ten types account for 64 percent of the schools). A graph of these results is shown in Figure 2.

Figure 2 indicates the same thing that we saw in Table 40, that is that relatively few school "types" account for a large proportion of the schools. The question remains, "Is the popularity of school types the same in each of the three sampling strata?" The answer is no. This observation can be examined through the construction of the same six-dimensional distribution that was used in the aggregated sample (Table 40 and Figure 2). Listing the most popular school types for each stratum separately shows that, although very few school types account for most schools within each stratum, there is no universal appeal of any type. This result is expected, since the strata reflect an attempt to sample different demographic groups differentially, and the finding of different "types" merely confirms empirically what was in the design. The most popular types are shown in Table 41.

It is helpful to scan through the groupings in Table 41 to try to pick out the demographic features that characterize each stratum. When we identify the demographic variables that predominate by their presence (1) or absence (0), we make the following observations:

Stratum 1 is characterized by larger enrollments and by the presence of four or more full-time equivalent counselors.

Stratum 2 is characterized by a predominance of white students and by a lower dropout rate, and by smaller enrollment and fewer than four full-time equivalent counselors.

Stratum 3 is characterized by a predominance of white students and by a lower dropout rate.

The strata vary over most of the variables not singled out above.

Given the way the strata were defined, none of these differences is exactly surprising.

Another way of comparing the distribution of school types is through a "P-P Plot" (see Wainer and Thissen, 1981). In this graph we order the 64 categories for each stratum according to their frequency in the entire sample, and then calculate the cumulative proportion (as in the last column of Table 40). It is clear that any such cumulative proportion must start at zero and end at one, but how it gets between these two extremes is the distribution of the variable of interest. To compare two distributions we merely plot these cumulative p's, one against the other. If two variables have the same distribution, they will fall on a 45° line. The extent to which the actual distribution deviates from that diagonal is the extent to which the two strata are not distributed the same way. Shown in Figures 3 through 5 are three such P-P plots comparing each stratum with the other two. The message these plots tell us is that Strata 2 and 3 are somewhat similar to one another and are quite different from Stratum 1.

Delivery System Types

The foregoing analysis has shown what could be discovered (using these variables) about the demographic characteristics of the more than eighteen hundred schools in the sample. The next stage is to examine (using much the same strategy) the structure of delivery system types. Again the questionnaire variables may be divided into 6 binary variables that describe whether or not a certain level has been reached for each of six kinds of delivery systems. These are shown in Table 42.

Once again the frequencies of occurrence for all possible combinations of these variables may be calculated, as in Table 43. The table shows much greater homogeneity among these variables than was found among school demographic types. First, one notes that nine combinations of delivery systems account for more than half (54 percent) of all schools sampled. Looking within stratum, one can examine the most commonly reported combinations of delivery systems. These are delineated in Table 43, which shows that in Stratum 1 there is considerable emphasis on AV and school-based systems and an absence of keysorts or needlesorts (which attempt to allow a structured search, without use of a computer, of occupations that match criteria imposed by the searcher). Stratum 2 is like Stratum 1 but with the additional characteristic that computer-based systems are wholly absent among the most popular types. Stratum 3 emphasizes publications, audiovisual materials, and school-based approaches and is not characterized by the absence of any particular approach.

A more overall comparison of the distribution of delivery systems between strata can be made through the same sort of P-P plot used to compare the demographic variables. These are shown in Figures 6, 7 and 8. These P-P plots indicate that the distribution of delivery systems is more similar than was the distribution of demographic characteristics (as would be expected, since the stratification was done on bases related to some of the demographic variables rather than to the delivery system variables). We note that Strata 2 and 3 are similar and are somewhat different from Stratum 1 schools.

The Answer to the Research Question

The analyses described above have provided a rough idea of the general structure of the data, and have led to some general statements comparing schools within and between strata. The original research question required examination of a 64-by-64-by-3 contingency table, a task that seemed inadvisable because of the possibility of viewing mostly empty cells. The exploratory analyses, however, have shown that while most cells will be empty, there will be a few cells that will account for much of the data. Therefore it is worthwhile to look at the full contingency table, one layer (stratum) at a time.

It is not particularly instructive to reproduce the whole contingency table for each stratum. For all three strata it runs to 24 pages. However, it is useful to combine Table 41 (the eight most popular demographic types) and Table 43 (the nine most common types of delivery systems). Let us also extend Table 43 to include all delivery system types that occurred 10 or more times within a stratum. The combinations appear in Tables 44 (Stratum 1), 45 (Stratum 2), and 46 (Stratum 3). In each case, the demographic types occupy rows and the delivery types occupy columns. Both are in descending order of popularity. The row and column totals are those for the full contingency table.

It is worth noting in Table 44 that for only five of the 17 columns does the sum of the entries in the cells come to more than 50 percent of the total for the delivery type represented by the column. For example, the sum of the entries in column 1 is 38. This is 58 percent of the 66 occurrences of the 101101 delivery type that were found in the entire stratum. That is, for that delivery type, most of the occurrences were among the eight most frequently recurrent demographic types. This phenomenon also occurs in columns 4, 8, 9, 14, and 16; there is a congruence of the most "popular" delivery type and demographic type, as shown in the following table:

Column	Column Total	Stratum Total	Percent of Columns in Table
1	38	66	58
4	25	41	61
8	14	24	58
9	14	21	67
14	7	12	58
16	7	11	64

By contrast, for the delivery types tallied in columns 2, 3, 5, 6, 7, 10, 11, 12, 13, 15, and 17, the majority of occurrences throughout the stratum were not among the eight most "popular" demographic types, as shown in the following table.

Column	Column Total	Stratum Total	Percent of Stratum in Table
2	21	57	37
3	15	47	32
5	10	27	37
6	7	26	27
7	10	25	40
10	7	20	35
11	5	18	28
12	5	18	28
13	5	18	28
15	4	11	36
17	2	10	20

Do the delivery systems that cluster among the most "popular" demographic types differ from those that cluster among the less popular ones? Before answering this question, we should note that the "popular" delivery types in this stratum all tend toward reliance on audiovisual materials (13 occurrences) and experience-based approaches (15 occurrences). Other characteristics are less pronounced.

Table 47 compares the two sets of delivery types. The table underlines the frequency of audiovisual and experience-based approaches in both groups. But clear differences emerge. Schools of the less common demographic types use noncomputerized sorts (e.g., needlesorts and keysorts) less frequently than schools in the more common demographic types. Only one delivery type out of 11 has such a sort in the infrequent group, whereas three out of six have it in the frequent group. The same phenomenon occurs with respect to microforms: two occurrences in the infrequent group, four in the frequent group. Most pronounced of all is the difference in reliance on publications. All the most common delivery types that cluster in the most common demographic type use publications rather heavily; only 3 of the 11 most common delivery types do so if they cluster outside the most common demographic type.

Similar comparisons may be made from Tables 45 and 46 for Strata 2 and 3. The results differ from those for Stratum 1. For Stratum 2 (Table 45), there are 18 columns. In every case, the most common delivery types are subsumed by the most common demographic types. In fact, in no case does the total for a column in the table fall below 61 percent of the total for that type for the stratum as a whole. These results are perhaps not surprising considering the nature of Stratum 2. It was the most homogeneous of the three strata. Consequently, for Stratum 2, the conclusions about demographic types and the conclusions about delivery system types, previously considered separately, may be conjoined. That is, there is on the demographic side a predominance of white students and a low dropout rate, smaller enrollments, and fewer than four full-time-equivalent counselors conjoined with, on the delivery system side, a considerable emphasis on audiovisual and school-based systems, and an absence of keysorts or needlesorts, together with an absence of computer systems.

The analysis of Table 46 for Stratum 3 reveals a situation much like that for Stratum 2. In only three of the 20 columns do the column totals fall below 50 percent of the stratum total for the delivery system type represented in a column. These are columns 14, 16, and 18. The three types in these columns do not appear distinctively different from the other 17 types. It seems likely therefore, that Stratum 3 is characterized on the demographic side by a predominance of white students and a lower dropout rate as shown on Table 41, and on the delivery system side by emphasis on publications, audiovisual materials, and school-based approaches, with no pronounced absence of other approaches, as shown on Table 43.

The "nothing" delivery pattern--000000--appears among the "popular" types in all three strata. It ranks 12th in frequency in Stratum 1, 6th in Stratum 2, and 11th in Stratum 3. It seems to be associated with fewer than four full-time-equivalent counselors (fifth digit of the demographic characterizers). Schools that offer the least with regard to career delivery systems also have fewer counselors to serve as resources. The "nothing" pattern does not seem to be associated strongly with other demographic variables.

The "everything" delivery pattern--111111--also appears among the "popular" types in all three strata. It ranks ninth in Stratum 1, 15th in Stratum 2, and third in Stratum 3. In Strata 2 and 3 it is associated with a school population that is more than half white, for that variable characterizes those strata; in Stratum 1 it does not seem to be closely associated with any demographic variable.

These results are interesting in themselves, but they do not seem particularly useful for the determination of policy. They confirm what one surmised--namely, that the strata are different on demographic variables, as they ought to be if the schools were chosen according to plan; and that different patterns of career delivery systems exist. The analysis does not shed much light on the extent to which the delivery systems serve the students well and efficiently.

Table 40

Distribution of Schools by Demographic Type

(F)	Number of categories sampled	Which category[a]	Number of schools represented	Cumulative Proportion (percent)
258	1	011101	258	13.6
201	2	111111	459	24.2
183	3	001101	642	33.9
161	4	011100	803	42.4
109	5	111110	912	48.2
98	6	001100	1010	53.3
55	7	001001	1065	56.2
52	8	111100	1117	59.0
50	9	111011	1167	61.6
47	10	111101	1214	64.1
39	11	101111	1253	66.2
39	12	001000	1292	68.2
35	13	110111	1327	70.1
34	14	100011	1361	71.9
29	15	000001	1390	73.4
28	16	000101	1418	74.9
26	17	101011	1444	76.2
26	18	101101	1470	77.6
25	19	110011	1495	78.9
25	20	011001	1520	80.3

[a] Meaning of digits in order, left to right:

1st 1 = 750 or more in grades 10, 11, 12
2nd 1 = More than half students academic
3rd 1 = More than half students white
4th 1 = Dropout rate 14% or less
5th 1 = 4 or more FTE counselors
6th 1 = Presence of a head of guidance
0== The opposite condition

Table 41

The Most Common Demographic Types by Stratum

Stratum																				
1							2							3						
f	Enrollment[a]	Program[b]	Race[c]	Dropout[d]	Counselors[e]	Head Guidance[f]	f	Enrollment	Program	Race	Dropout	Counselors	Head Guidance	f	Enrollment	Program	Race	Dropout	Counselors	Head Guidance
52	1	1	1	1	1	1	178	0	1	1	1	0	1	131	1	1	1	1	1	1
30	1	1	0	1	1	1	129	0	0	1	1	0	1	76	1	1	1	1	1	0
29	1	0	0	0	1	1	85	0	1	1	1	0	0	70	0	1	1	1	0	1
26	1	1	1	1	1	0	60	0	0	1	1	0	0	62	0	1	1	1	0	0
24	1	1	1	0	1	1	20	0	0	1	0	0	0	44	0	0	1	1	0	1
22	1	1	0	0	1	1	18	0	0	1	0	0	1	31	0	0	1	1	0	0
21	1	0	0	1	1	1	18	0	1	1	0	0	1	30	1	1	1	1	0	1
21	1	1	1	1	0	0	18	1	1	1	1	1	1	25	1	1	1	0	1	1

[a] 1=750 or more in grades 10, 11, and 12 combined

[b] 1=More than half the students in an academic program

[c] 1=More than half the students white

[d] 1=Dropout rate 14% or less

[e] 1=4 or more fulltime-equivalent counselors

[f] 1=Presence of a head of guidance

0=the opposite condition

Table 42

Types of Career Information Delivery Systems[a]

Type	Variable identification	Criterion/Description
1	Publications	Does the school provide more than 11 publications? (items A1-A10, B1-B14, C1-C6, D1-D4, E1-E3, and F1-F4)
2	Computer	Does the school provide any computerized delivery system? (items G1-G8)
3	Audiovisual	Does the school provide any audiovisual information delivery? (items H1-H3)
4	Microforms	Does the school have any microforms? (items I1-I3)
5	Manual Sorts	Does the school have any noncomputerized card sorting? (items J1-J3)
6	School-arranged Experience	Does the school provide more than 3 demonstrations, lectures, etc.? (items K1-K10)

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[a] Types are composed of six 1-0 dichotomous variables computed from Question 11 of Part B of the school questionnaire.

Table 43

The Most Common Delivery Types by Stratum

Stratum																				
1							2							3						
f	Publications	Computer	Audiovisual	Microform	Manual sorts	School experience	f	Publications	Computer	Audiovisual	Microform	Manual sorts	School experience	f	Publications	Computer	Audiovisual	Microform	Manual sorts	School experience
66	1	0	1	1	0	1	61	0	0	1	0	0	1	64	1	0	1	1	1	1
57	1	0	1	0	0	1	50	1	0	1	1	1	1	63	1	0	1	1	0	1
47	0	0	1	0	0	1	48	1	0	1	1	0	1	44	1	1	1	1	1	1
41	1	0	1	1	1	1	45	0	0	1	0	0	0	43	1	0	1	0	0	1
27	0	0	0	0	0	1	45	1	0	1	0	0	1	42	1	1	1	1	0	1
26	0	1	1	0	0	1	43	0	0	0	0	0	0	41	1	0	1	0	1	1
25	0	0	1	1	0	1	36	0	0	1	1	0	1	34	0	0	1	0	0	1
24	1	1	1	1	0	1	28	0	0	0	0	0	1	32	1	1	1	0	0	1
21	1	1	1	1	1	1	21	0	0	1	0	1	1	31	1	1	1	0	1	1
334[a]							377[b]							394[c]						

[a] 62% of stratum total

[b] 56% of stratum total

[c] 57% of stratum total

Table 44

Demographic Type Versus Delivery Type for Stratum 1

Delivery type[a] / Demographic type[b]	101101	101001	001001	101111	000001	011001	001101	111101	111111	111001	101011	000000	001000	111011	010001	100001	011101	Totals[c]
1 1 1 1 1 1	10	6	1	9	2	1	0	3	3	1	2	1	0	4	1	1	2	52
1 1 0 1 1 1	6	2	0	6	1	1	3	1	4	1	0	0	1	0	1	1	0	30
1 0 0 0 1 1	6	3	2	1	2	1	2	2	1	1	1	1	1	1	1	0	0	29
1 1 1 1 1 0	4	2	1	0	3	2	0	2	2	0	0	1	0	0	0	1	0	26
1 1 1 0 1 1	8	1	0	3	0	1	0	2	1	3	0	0	1	0	0	0	0	24
1 1 0 0 1 1	1	1	2	2	1	1	2	2	1	0	1	0	1	2	0	1	0	22
1 0 0 1 1 1	1	3	6	2	0	0	2	2	1	1	0	0	1	0	1	1	0	21
1 1 1 1 0 0	2	3	3	2	1	0	1	0	1	0	1	2	0	0	0	2	0	21
Totals[c]	66	57	47	41	27	26	25	24	21	20	18	18	18	12	11	11	10	540

a Meaning of digits in order, bottom to top:
1st 1=More than 11 publications
2nd 1=Presence of computerized system
3rd 1=Presence of audiovisual
4th 1=Presence of microforms
5th 1=Presence of noncomputerized sorts
6th 1=More than 3 kinds of school-arranged experience
0=the opposite condition

b Meaning of digits, left to right:
1st 1=750 or more in grades 10,11,12
2nd 1=More than half of students academic
3rd 1=More than half students white
4th 1=Dropout rate 14% or less
5th 1=4 or more FTE counselors
6th 1=Presence of a head of guidance
0=the opposite condition

c Totals are for the whole matrix, not just the portion in the table.

Table 45

Demographic Type Versus Delivery Type for Stratum 2

Delivery type[a] / Demographic type[b]	001001	101111	101101	001000	101001	000000	001101	000001	001011	101011	001100	111101	000101	001111	111111	000100	000010	001110	Totals[c]
0 1 1 1 0 1	13	20	11	10	13	6	10	6	6	8	2	1	5	5	2	2	1	3	178
0 0 1 1 0 1	13	8	5	9	5	14	9	7	8	2	5	2	3	5	0	2	2	2	129
0 1 1 1 0 0	7	6	5	7	7	3	3	8	2	3	0	6	1	2	4	1	4	1	85
0 0 1 1 0 0	7	0	1	5	3	9	3	4	1	0	1	1	4	1	1	3	0	0	60
0 0 1 0 0 0	5	0	0	3	2	4	0	0	0	0	1	0	0	0	0	1	0	1	20
0 0 1 0 0 1	1	1	0	1	2	1	1	0	0	1	1	1	1	0	1	0	1	1	18
0 1 1 0 0 1	2	1	4	0	1	0	1	0	0	2	0	0	1	1	0	0	1	1	18
1 1 1 1 1 1	1	2	5	0	1	0	1	0	0	0	1	2	0	0	3	0	0	0	18
Totals[c]	61	50	48	45	45	43	36	28	21	20	18	17	16	15	14	11	11	11	668

a Meaning of digits in order, bottom to top
1st 1=More than 11 publications
2nd 1=Presence of computerized system
3rd 1=Presence of audiovisual
4th 1=Presence of microforms
5th 1=Presence of noncomputerized sorts
6th 1=More than 3 kinds of school-arranged experience
0=the opposite condition

b Meaning of digits, left to right
1st 1=750 or more in grades 10, 11, 12
2nd 1=More than half of students academic
3rd 1=More than half of students white
4th 1=Dropout rate 14% or less
5th 1=4 or more FTE counselors
6th 1=Presence of a head of guidance
0=the opposite condition

c Totals are for the whole matrix, not just the portion in the table.

Table 46

Demographic Type Versus Delivery Type for Stratum 3

Delivery type[a] / Demographic type[b]	1 1 1 1 0 1	1 0 1 1 0 1	1 1 1 1 1 1	1 0 0 1 0 1	1 0 1 1 1 1	1 1 0 1 0 1	1 0 0 1 0 0	1 0 0 1 1 1	1 1 0 1 1 1	1 0 0 0 0 0	0 0 0 0 0 0	1 0 0 0 0 1	1 0 0 1 1 0	1 0 1 1 0 0	0 0 0 0 1 0	0 0 0 1 0 1	1 0 1 1 1 0	1 1 1 1 0 0	1 1 0 1 0 0	1 0 0 0 1 0	Totals[c]
1 1 1 1 1 1	11	12	17	8	12	8	4	13	10	3	0	1	3	1	1	1	2	0	3	1	131
1 1 1 1 1 0	9	4	[illegible]	2	5	4	0	9	4	2	0	7	3	0	3	0	2	0	0	3	76
0 1 1 1 0 1	6	5	5	6	2	5	9	1	2	1	5	1	2	2	0	1	0	1	1	1	70
0 1 1 1 0 0	4	10	0	3	5	1	3	0	1	4	4	1	2	2	0	2	1	1	1	1	62
0 0 1 1 0 1	4	9	0	3	1	3	3	0	3	1	3	1	0	0	1	0	0	2	1	0	44
0 0 1 1 0 0	5	0	0	2	0	3	3	0	0	0	2	2	0	1	2	0	2	1	0	0	31
1 1 1 1 0 1	4	2	2	3	6	2	0	2	2	0	1	1	0	0	2	0	0	0	0	0	30
1 1 1 0 1 1	2	2	4	0	5	1	0	0	2	1	0	1	0	0	0	0	0	0	1	1	25
Totals[c]	64	63	44	43	42	41	34	32	31	22	22	20	17	15	12	12	11	11	10	10	686

a Meaning of digits in order, bottom to top:

1st 1=More than 11 publications
2nd 1=Presence of computerized information
3rd 1=Presence of audiovisual
4th 1=Presence of microforms
5th 1=Presence of noncomputerized sorts
6th 1=More than 3 kinds of school-arranged experience
0=the opposite condition

b Meaning of digits in order, left to right:

1st 1=750 or more in grades 10, 11, 12
2nd 1=More than half students in academic
3rd 1=More than half students white
4th 1=Dropout rate 14% or less
5th 1=4 or more FTE counselors
6th 1=Presence of a head of guidance
0=the opposite condition

c Totals are for whole matrix, not just the portion in the table.

Table 47

Patterns of Delivery Types that are Found Infrequently Among the Most "Popular" Demographic Types Compared with Those Found Frequently, Stratum 1

Infrequent[a]		Frequent	
Column	Pattern[b]	Column	Pattern[b]
2	101001	1	101101
3	001001	4	101111
5	000001	8	111101
6	011001	9	111111
7	001101	14	111011
10	111001	16	100001
11	101011		
12	000000		
13	001000		
15	010001		
17	011101		

[a] Fewer than 50% of occurrences within the stratum are among the most "popular" demographic types.

[b] Meaning of digits in order, left to right:

1st 1 = More than 11 publications
2nd 1 = Presence of computerized system
3rd 1 = Presence of audiovisual
4th 1 = Presence of microforms
5th 1 = Presence of noncomputerized sorts
6th 1 = More than 3 kinds of school-arranged experience
0 = the opposite condition

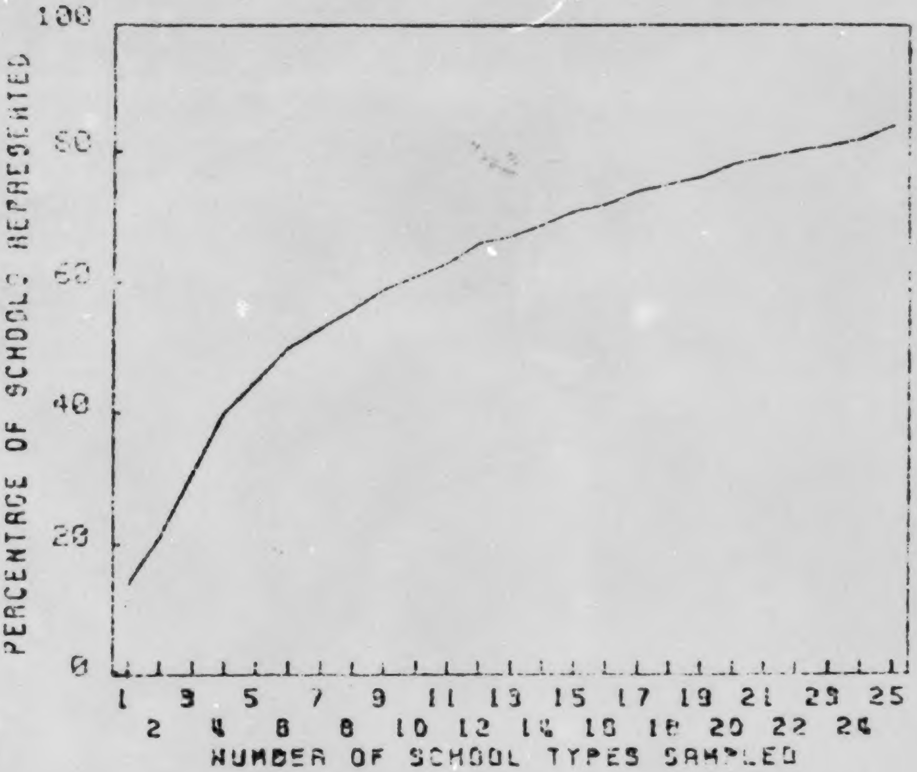

Figure 2. Graph of number of school types versus percentage of schools they represent.

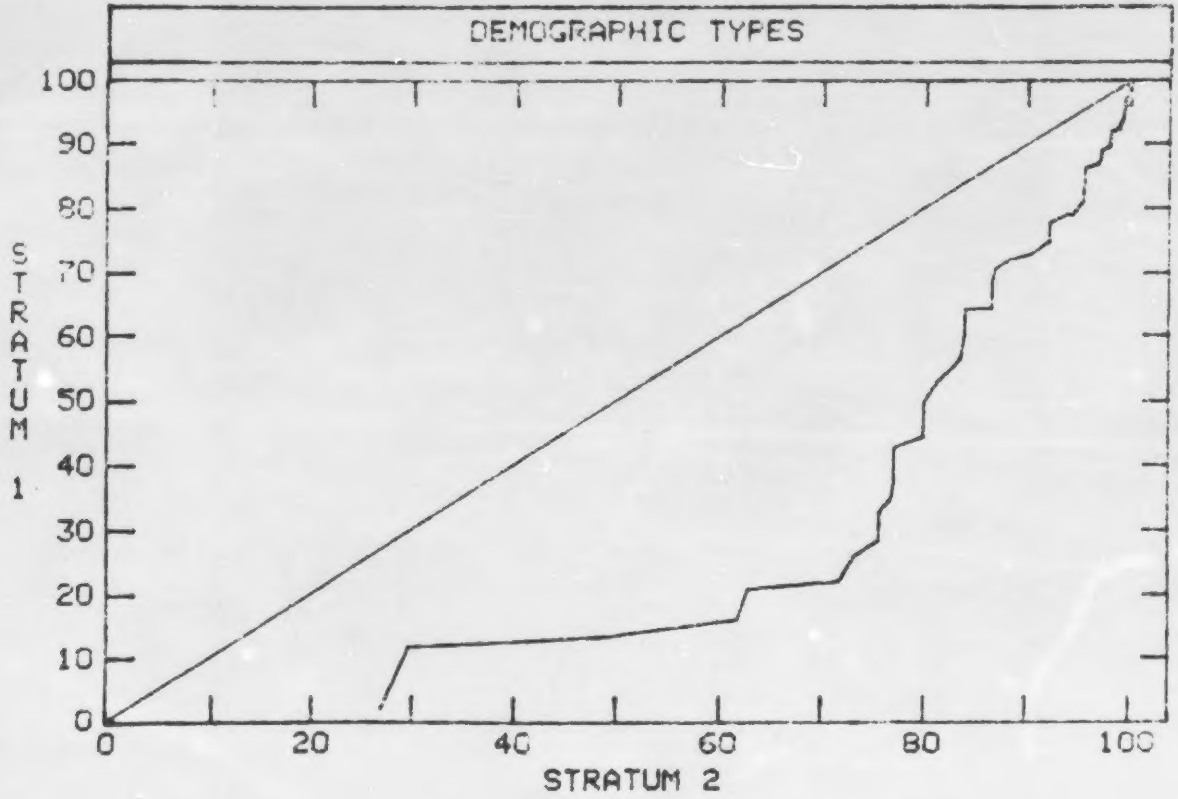

Figure 3. P-P plot of demographic types of Stratum 1 versus Stratum 2.

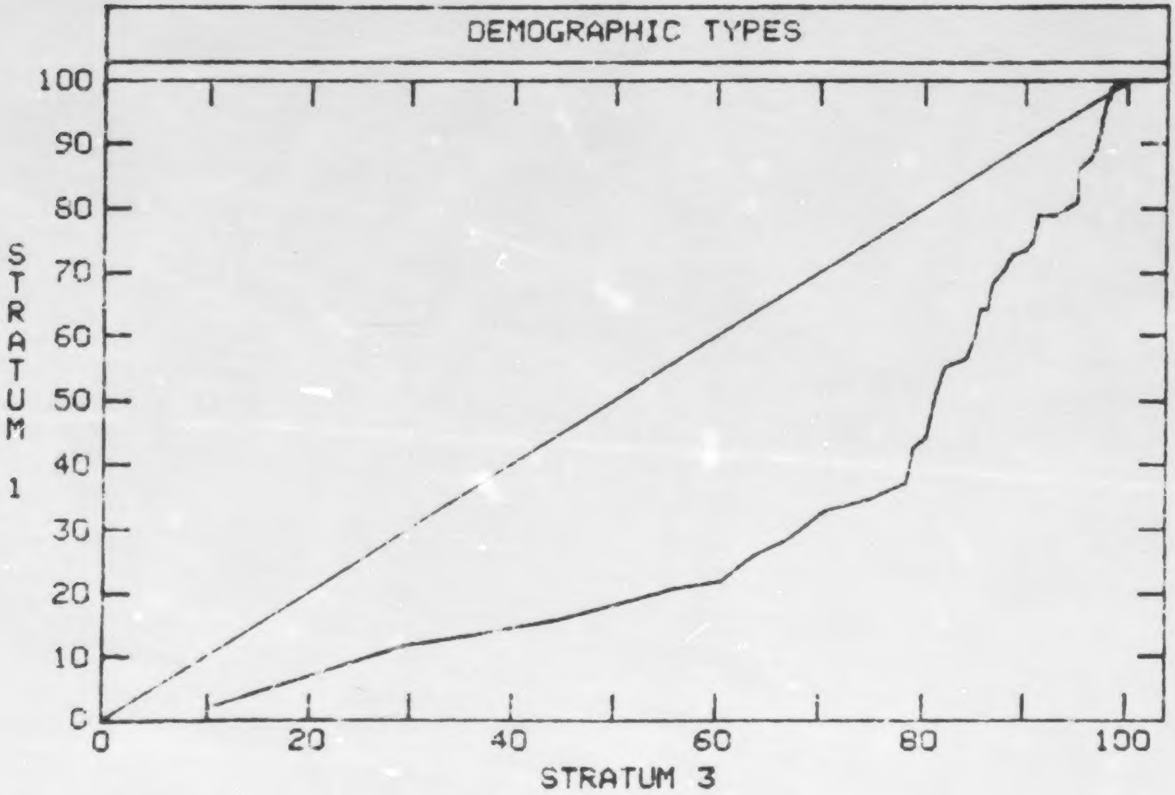

Figure 4. P-P plot of demographic types of Stratum 1 versus Stratum 3.

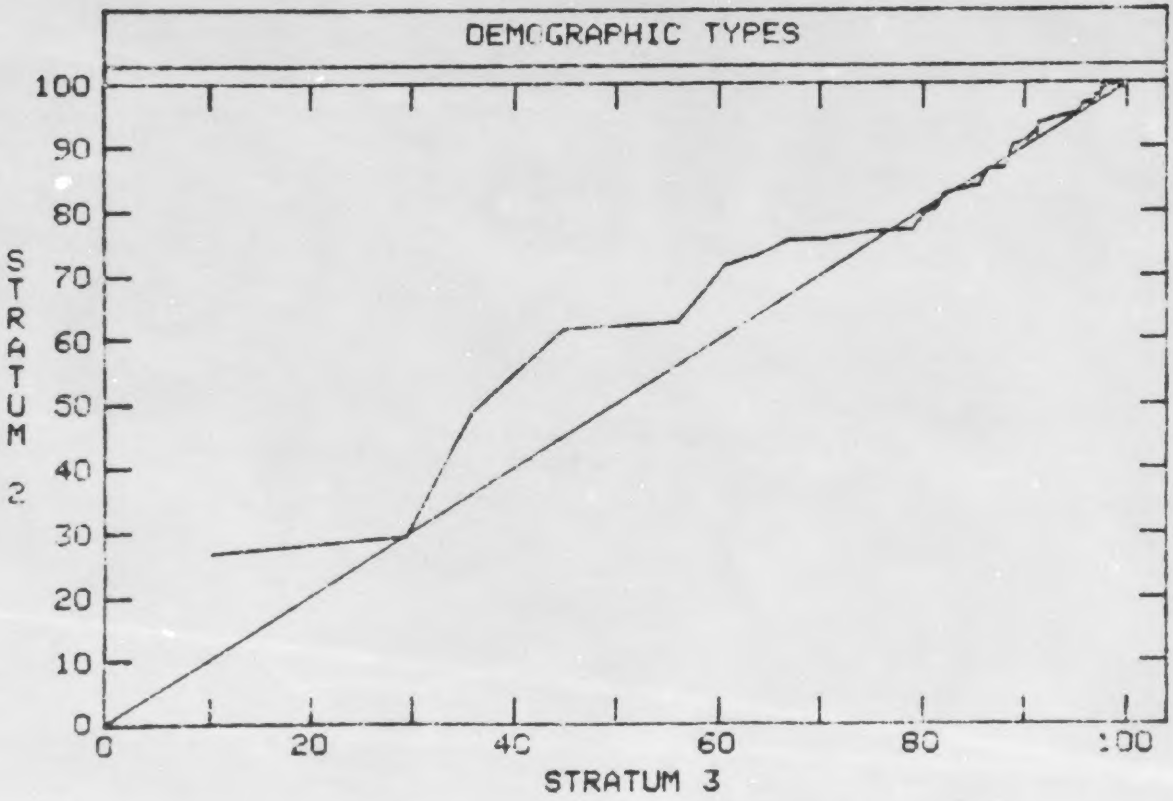

Figure 5. P-P plot of demographic types of Stratum 2 versus Stratum 3.

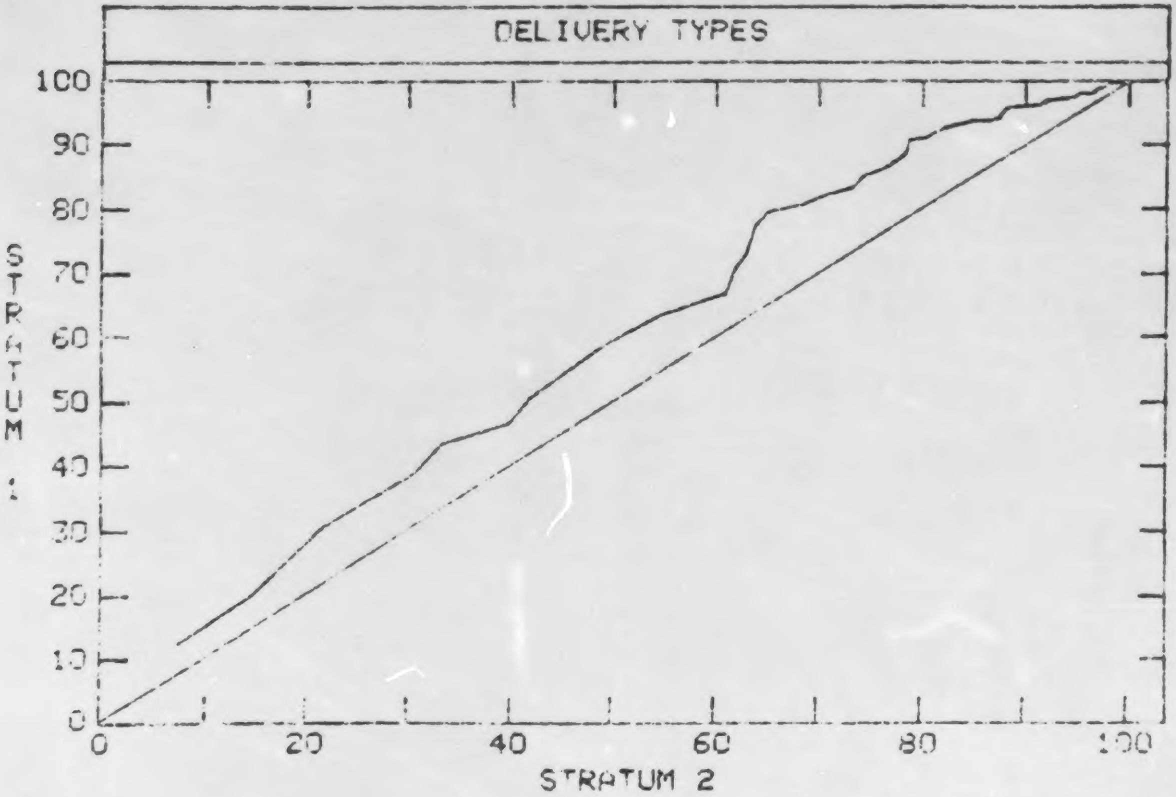

Figure 6. P-P plot of delivery types of Stratum 1 versus Stratum 2.

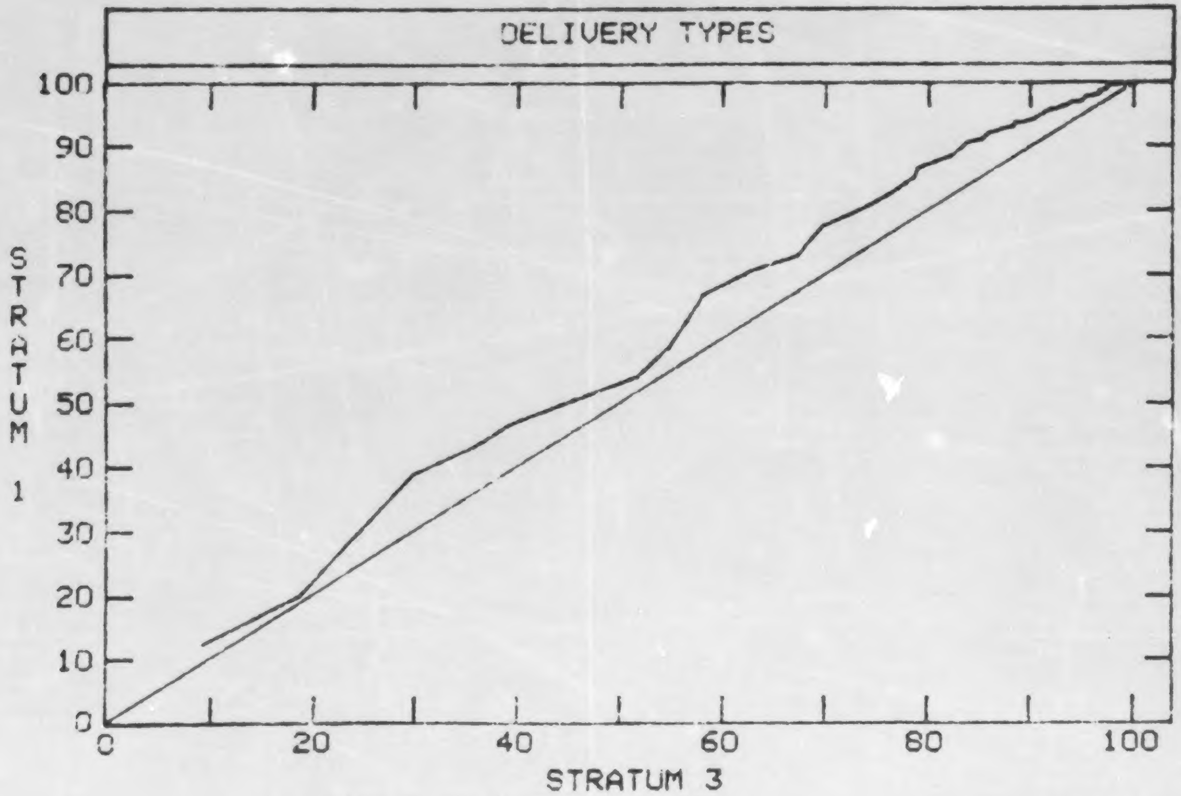

Figure 7. P-P plot of delivery types of Stratum 1 versus Stratum 3.

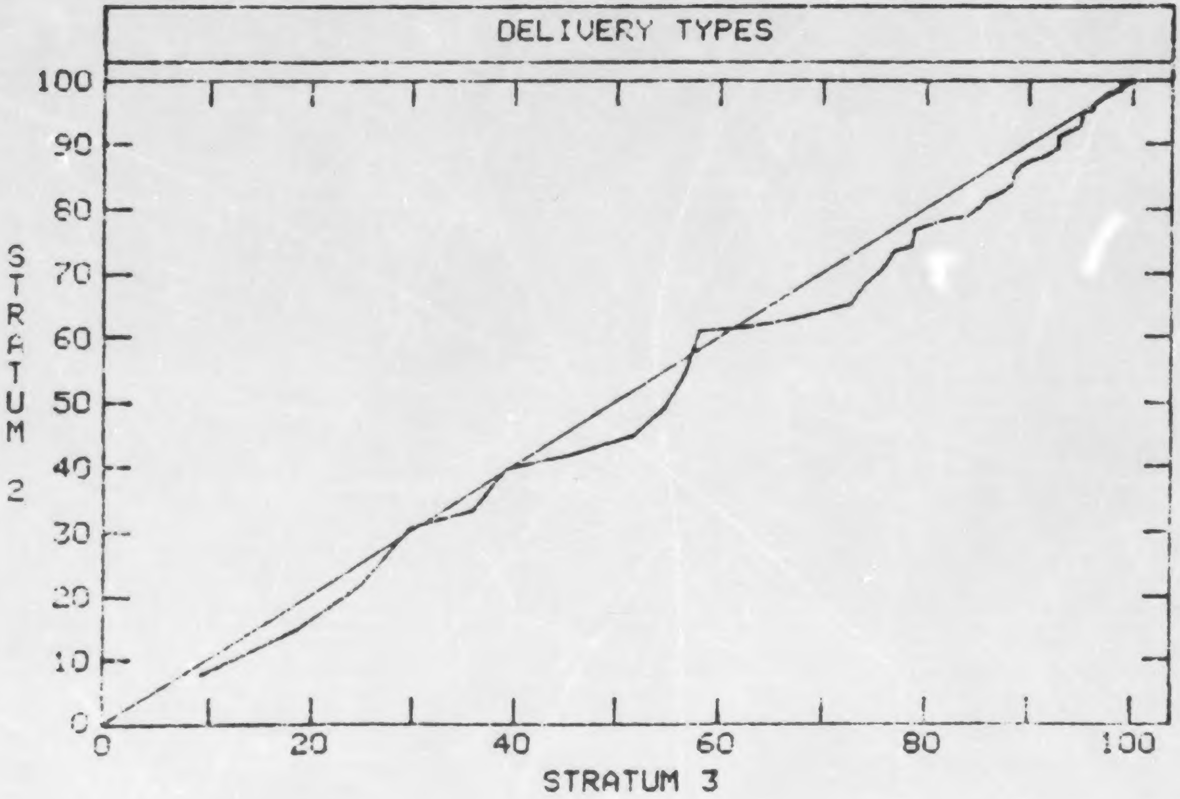

Figure 8. P-P plot of delivery types of Stratum 2 versus Stratum 3.

CHAPTER V

RESEARCH QUESTION B2

Questions b2, b3, and b4 (b1 was eliminated at the suggestion of the Research Advisory Council) concern the management of career information resources and access to them. Question b2 is "What school staff are responsible for these resources and what are their responsibilities?" Other questions related to management (e.g., frequency of review of resources) will also be discussed in this section.

Head of Guidance

Question A8 asked whether there was someone at the school who served as director or head of CAREER guidance. The aim of the question was to find out if the function was performed and the wording was deliberately somewhat vague. The responses were strikingly uniform in the three strata; 62 percent responded yes in Stratum 1, 64 percent in Stratum 2, and 62 percent in Stratum 3. The national estimate was 63 percent, and the count of no response was less than 3 percent in any stratum.

Apparently a majority of schools--but not as many as two-thirds--see themselves as having some centralized control over career guidance activities. In over a third of the schools the authority is presumably distributed rather than centralized. There is no way to tell which method is superior.

Responsibility for Specific Activities

Question 3 asked the school to indicate the staff members who were responsible for carrying out each of nine activities connected with management of career information resources. The results appear in Table 48. The figures in the cell are the percentages of the schools in each stratum that said that the staff member named in the column head was responsible for the activity described in the row. For each activity Stratum 1 is listed at the top, followed by the other strata and the national estimate. Although the schools were instructed to designate only one staff member per activity, some of them designated two or more, for the figures for each stratum add up to a little more than 100 percent. There were in addition a few "no responses" (usually less than 2 percent) for each activity. These are not shown in the table.

Once again the table shows considerable uniformity between strata. When the figures are large for one stratum, they tend to be large for the others, too. For the most part, responsibility is given mainly to guidance specialists--the director of guidance or staff and the coordinator of career education or staff. (These may be different titles for the same function.) Exceptions are planning major expenditures, where the principal or assistant principal has responsibility about equal to that of the guidance staff; supervising exploratory work-experience programs, where teachers' responsibility is, not surprisingly, at least equal to that of the director of guidance or staff; and helping students locate materials or advising them on where to look, as well as maintaining an index of occupational information materials, where the librarian has responsibility in about 13 to 20 percent of the schools.

The percentages in "Task not performed" column are gratifyingly small, except in two instances. The first is understandable. The apparent lack of supervision of work experience (20 percent of the schools in the national estimate) is almost certainly due to the absence of work experience programs in many schools. The percentages of schools indicating that they offered exploratory work experience (Item K3, Question 11) were 75 for Stratum 1, 49 for Stratum 2, 70 for Stratum 3, and 58 for the national estimate.

The other task not performed in a large number of schools is making data on jobs held by former students available to students. This item was included in the questionnaire at the suggestion of the Research Advisory Council for the study, all of whose members thought such data had an important influence on the career decisions of high school students. Such data are not made available in over 40 percent of the schools.

The role of teachers is quite small except for supervising exploratory work experience and, to a much smaller extent, evaluating new or replacement materials. The principal or assistant principal has a more active role than the teachers do, except for supervising work experience. In the main, the picture is one in which the schools, regardless of stratum, have invested major responsibility in the hands of a director of guidance and his or her staff, or in the hands of a coordinator of career education and his or her staff.

Activities of Guidance Counselors

One career information resource is guidance counselors themselves. Question 4 asked, "To what extent do the professional guidance counselors in your school perform each of the following activities?" Professional guidance counselors were defined as those with state certificates in guidance. The activities and the responses to the question are shown in Table 49.

Table 49 shows that, in the eyes of the schools, counselors have a heavy management responsibility in serving as occupational resources themselves. The responses are uniform not only across strata but also to a large extent across the categories of activities. Generally, in about two-thirds of the schools counselors are responsible "a great deal of the time" for helping students in the activities named. The nature of the question invites a guess on the part of the person filling out the questionnaire, for hard data would surely be almost impossible to get. Yet the uniformity of the responses supports the impression that the responses really reflect what is going on.

Counselors are also seen as effective motivators for getting students to use occupational information; 93 percent of responding schools (national estimate) called counselor referrals somewhat effective or very effective in serving this purpose (Question 2). This matter is discussed more fully elsewhere in this report.

The Management of the Review Function

Occupations may change rapidly in times of technological and social pressure, and information about earnings quickly decays in inflation. Students laugh at films showing people in cars or clothes ten years out of date. Therefore it is desirable for schools to provide for review of existing and new materials in their management of resources. Committees are often used for this purpose. Who should be members of the committees?

Question 5 addressed this issue. Responses are shown in Table 50. The most striking feature of this table is the finding that more than 70 percent of the schools have not established committees for the review of occupational information resources. This does not necessarily mean that no review takes place at all. Table 48 shows that less than four percent of the schools do not evaluate new materials or decide when to discard old ones. But a review committee would seem to be a desirable safeguard for preserving the integrity of occupational information. It may be noted that about three-quarters of the schools had occupational handbooks for the military among their resources; 53 percent had pamphlets prepared by professional associations; 48 percent had pamphlets prepared by private businesses (Table 9, Items A8, B11, and B12). These resources have been criticized for painting inaccurately rosy pictures for recruiting students into the occupations they cover. Some of them are very good, but they certainly should be subjected to critical review to weed out propaganda, just as all resources should be examined for obsolescence.

Guides and Indexes for Selecting Guidance Materials

The guides and indexes used by school staff to order or select guidance materials are part of the management of career information resources. Question 10 asked for this information, and the responses are shown in Table 51.

The table shows that a wide variety of resources are used and that very few schools answered "one." Again, responses were uniform across strata. The most popular resources are publishers' catalogues, which usually come unsolicited. They are used by 66 percent (national estimate) of the schools. Also popular are the Career Index (Chronicle Guidance Publications annual directory) (51 percent), the Educator's Guide to Free Guidance Materials (50 percent), and the Career Guidance Index (Careers, Inc.) (46 percent). The NVGA Bibliography of Current Career Information, which rates materials in accordance with published criteria, is not used much. However, the Vocational Guidance Quarterly, an NVGA journal that also rates materials by the same standards, is used more frequently.

Responsibility for actually selecting materials may be inferred from Table 48. For the most part, the responsibility belongs to the director of guidance or staff, or, less frequently, to the coordinator of career education or staff, the principal, or a teacher.

Other Management Activities

Table 48 showed that the director of guidance or staff most often bore responsibility for deciding when to discard old or obsolete materials. Less frequently this responsibility was exercised by the coordinator of career guidance or staff or by the librarian. How often are resources reviewed for obsolescence?

Questions 18 and 29 ask for this information about publications (18) and audiovisual, microfiche, and noncomputerized sorting materials (29). Responses are shown in Table 52. The figures for publications are the percentages of schools in each stratum. The corresponding figures for audiovisual, microfiche, and noncomputerized sorting materials are the percentages of schools that have the resource within each stratum.

Both parts of the table show that in general over 60 percent of the schools review these four classes of resources at least once a year. Conversely, 30 to 40 percent do not review them so often, and from 5 to 8 percent never review them at all. Even though different classes of occupational information age at different rates (information about earnings and outlook decaying the fastest), most writers on the subject agree that it should all be reviewed, but not necessarily be discarded, at least once a year. Robert Hoppock (1976) says, "Every library of occupational information should be thoroughly weeded once a year, at which time all obsolete publications should be removed" (p. 47). For 30 percent or more of the schools to neglect this important function is discouraging.

Table 48

Staff Responsible for Management of Career Information Resources

Staff / Activity	Stratum	Principal or assistant principal	Teacher	Director of guidance or staff	Coordinator of career education or staff	Librarian	State, regional, or district staff member	Other	Task not performed
a. Planning major expenditures (for equipment or other resources)....	1	37	3	27	15	6	9	3	4
	2	36	3	34	7	4	2	7	6
	3	31	2	39	17	4	3	3	3
	NE	35	3	35	11	4	3	6	5
b. Evaluating new or replacement materials.....	1	13	9	41	22	8	5	3	4
	2	14	12	52	11	7	1	2	3
	3	8	7	51	23	6	1	3	2
	NE	12	10	51	16	7	1	3	2
c. Helping students locate materials or advising where to look for specific information on occupations.....	1	0	9	53	26	14	1	4	0
	2	4	7	69	9	13	0	2	0
	3	1	6	58	25	11	0	4	0
	NE	3	7	64	15	13	0	3	0
d. Arranging for special programs, events or days.......	1	11	7	50	28	0	1	4	2
	2	19	6	62	9	0	0	2	3
	3	8	6	56	26	1	0	4	2
	NE	15	6	59	16	0	0	3	2
e. Supervising exploratory work-experience programs.	1	3	30	22	23	0	2	12	9
	2	9	23	25	11	0	2	6	25
	3	4	29	20	19	0	2	13	14
	NE	7	25	23	14	0	2	8	20
f. Making data on jobs held by former students available to students...	1	2	9	28	16	0	2	4	37
	2	5	5	36	7	1	1	3	42
	3	1	7	29	12	0	2	5	45
	NE	4	6	33	9	0	1	3	43
g. Deciding when to discard old and obsolete materials......	1	7	7	47	23	11	2	4	3
	2	12	7	60	8	10	0	2	2
	3	5	5	55	24	9	0	3	2
	NE	9	7	57	15	10	0	3	2
h. Maintaining index of occupational information materials	1	1	3	47	24	19	1	4	5
	2	2	3	59	9	20	0	3	6
	3	1	2	47	24	18	0	5	5
	NE	2	3	55	15	19	0	3	5
i. Coordinating activities with external agencies that provide occupational inform.	1	4	6	53	31	1	1	3	5
	2	8	5	69	11	2	0	2	5
	3	2	6	55	27	1	2	6	5
	NE	6	5	63	18	2	1	3	5

Figures are percentages of schools responding within each stratum. N's: Stratum 1=540, Stratum 2=668, Stratum 3=686.

Table 49

Activities of Professional Counselors When Functioning as Career Information Resources

Amount Activity	Stratum	Not at all	Somewhat	A great deal	Not applicable, Don't know
a. Directing students to books, pamphlets, films, or other sources of GENERAL occupational information	1	1	31	64	1
	2	3	26	65	4
	3	1	31	65	1
	NE	2	28	65	2
b. Directing students to SPECIFIC sources of information for a particular occupation	1	1	29	66	1
	2	3	22	69	4
	3	3	28	66	1
	NE	3	24	68	3
c. Directly answering students' questions about occupational information	1	1	26	69	2
	2	3	20	71	5
	3	2	26	69	2
	NE	2	22	70	4
d. Interpreting occupational information obtained by students	1	4	37	55	3
	2	4	34	56	5
	3	3	42	51	3
	NE	4	37	54	4
e. Assisting students with career decisions after they have used some of the occupational information resources available	1	2	33	60	2
	2	4	30	60	5
	3	1	34	61	2
	NE	3	31	60	4

All figures are percentages of the schools in the stratum, except for national estimates.

Table 50

Membership of Committees to Review Occupational Information Materials

Resource	Stratum 1	2	3	NE
Principal	10	9	8	9
Guidance counselors	24	18	23	20
Career education staff	12	7	13	9
Students	5	3	3	3
Teachers	14	11	12	11
Librarian	10	9	8	9
Local employers, labor leaders, etc.	6	3	6	5
Regional or state agency reps.	3	1	2	2
Parents	6	3	4	3
Other	3	2	3	2
We have no committee	66	77	70	73
No response	2	1	1	1

Figures are percentages of schools in the stratum.

Totals sum to more than 100 because schools could check more than one item.

Table 51

Guides and Indexes Used by Schools for Ordering or Selecting Guidance Materials

Resource	Stratum			
	1	2	3	NE
Career Guidance Index	46	44	51	46
Career Index	49	46	62	51
Counselor's Information Service	14	10	16	12
Current Career & Occupational Literature	11	7	8	7
Educator's Guide to Free Guidance Materials	47	50	52	50
Guidance Exchange	2	2	2	2
Guide to Indexes as a Resource for Occs.	6	5	6	5
Guide to Local Occupational Information	30	25	33	28
Index to Voc/Tech Education	10	10	11	11
Inform (APGA monthly newsletter)	26	21	29	24
Journal of College Placement	7	7	6	7
NVGA Bibliog. of Current Career Information	5	2	6	3
Vocational Guidance Quarterly	28	25	33	28
Index available from an external resource center	23	17	21	19
Publishers' catalogs	68	65	70	66
Other	11	10	12	11
None	5	4	3	3

Table 52

Frequency of Review for Obsolescence in Career Information Resources

Publications (Question 18) Frequency of Review	Stratum[a] 1 (540)	 2 (668)	 3 (686)	 NE
Never	5	6	4	5
Less than once a year	24	27	22	25
Once a year	53	51	60	54
More than once a year	10	8	10	9
No response	7	9	5	7

Audiovisual, microfiche, noncomputerized sorts (Question 29)

Resource Material

	Audiovisual[b]			Microfiche[b]			Noncomputer Sorting[b]		
	1 (365)	2 (432)	3 (483)	1 (209)	2 (297)	3 (325)	1 (157)	2 (240)	3 (268)
Never	7	5	6	8	7	6	7	5	7
Less than once a year	24	27	28	21	19	19	21	17	17
Once a year	51	55	53	53	59	62	53	62	60
More than once a year	11	7	8	11	9	6	8	9	9
Don't know	7	6	6	7	6	6	11	8	7

[a] Figures are percentages of schools in the stratum.

[b] Figures are the percentages of responding schools that have the resource within each stratum for each resource. N's are shown in parentheses.

CHAPTER VI

RESEARCH QUESTION B3

Research Question b3 is "What arrangements must be made and by whom [for students to use these resources]?" It will be convenient to answer this question separately for publications; computerized systems; audiovisual, microfiche, and noncomputerized sorting materials; and work experience. Also, the word "arrangements" will be interpreted broadly to include more than getting the student and resource together in the same room. Students are not accessing information if they cannot understand it or if it is locked in a machine that they cannot operate. Also, if a resource is in such short supply that students are discouraged from seeking it, access is affected. Therefore "arrangements" will be regarded as including assistance for students and availability of the resources.

The questionnaire did not ask where the resources physically resided because the answer would not be particularly illuminating. The resources may be in the library, a career resource center, a counselor's office, a waiting room outside the counseling area, or in various places scattered throughout the school. The questionnaire concentrated on identifying persons who scheduled access to the resources or helped students use them, and on hindrances that might restrict students' access.

Access to Publications

Accessing and advising. The main difficulty in accessing publications is finding the publication that will supply the information the student needs. The two aspects of this problem are the availability of human help and the indexing method applied to the publications.

Human assistance. Who is to help students locate the materials they want? Table 48, discussed in Chapter V, shows that for all strata this responsibility falls almost entirely to the director of guidance or staff, or to the coordinator of career education or staff. (The two titles sometimes designate the same function with regard to occupational information; the questionnaire listed both because some schools are familiar with the director title and others with the coordinator.) In almost 80 percent of the schools these are the staff members named as performing the accessing advising functions. Librarians also perform the function (in about 13 percent of the schools), and so do teachers to a lesser extent (about 7 percent).

We also observed in Chapter V that professional (i.e., certificated) counselors spent "a great deal" of time directing students to general and specific occupational information. In all strata almost two-thirds of the schools made that response (see Table 49). This finding is consistent with that discussed in the previous paragraph, since professional guidance counselors are almost invariably on the staff of a director or coordinator of guidance.

Cataloguing and indexing. An important aspect of making published occupational information accessible to students is the system used for cataloguing, filing, indexing, or displaying the resources. If the system is not transparent and easy to use, students have no alternatives except to abandon the search, trust to the luck of blind searching, or become wholly dependent on human assistance. Question 7 sought information on cataloguing systems. Table 53 shows the results.

It is evident from the table that schools use a wide variety of methods. The most popular among schools that have made up their own system is a simple alphabetical listing by title of the occupation. Since the same occupation may go under different names in different publications, the listing by title may cause much useful information to be overlooked. The most frequently used method for prepared systems is the DOT number. It will be remembered that the DOT was among the most popular publications. The Dewey decimal system, a standard method of classification of library materials, is the next most popular. To the extent that DOT numbers serve as a standard index for a great many resources (see Tables 10, 11, 12, and 15), one would think it would be more useful than the Dewey decimal system for cross-referring different resources to one another.

NOICC is promoting the Standard Occupational Classification (SOC) in an attempt to establish a crosswalk between various government classification systems. SOC was not even listed as an option for Question 7. The small number of "other" responses suggests that SOC--a relatively new system--has not caught hold yet.

The question of responsibility for indexing was answered in Table 48. Responsibility falls mainly to the director of guidance or staff (55 percent, national estimate), and to a lesser extent to the coordinator of career education or staff (15 percent), or to the librarian (19 percent).

A related question is whether the school has a central index where students can locate all the information from various sources about an occupation or cluster of occupations (Question 8). For the most part, schools do not have a central index. The "no" responses were 64 percent for Stratum 1, 71 percent for Stratum 2, 69 percent for Stratum 3, and 70 percent for the national estimate, with a few "No responses." Only about 30 percent of students can "crosswalk" from resource to resource for information about an occupation by means of a central index.

Availability of publications. Arrangements to use a resource are affected by its availability. Although the survey collected information about the variety of publications that schools owned, it did not collect information about the numbers of copies. The OOH, which was the most frequently named publication, being present in at least 90 percent of the schools, was an exception. If students sought occupational information from a publication, the OOH would be the most likely place for them to look. Would there be enough copies to go around?

Question 17 asked for this information. Table 54 shows the responses for the latest edition of the *OOH*. (The question also asked about older editions of the *OOH*, but this information is not relevant to this discussion.) The strata differ considerably in the number of copies available. The modal response for Stratum 2, which is more rural, and for the national estimate, is one copy; in the other two strata it is five or more. In all three strata the runner-up is two copies. There seems to be a distinct possibility that if many students wanted to refer to the *OOH* all at the same time, they would have difficulty in getting their hands on it. Scheduling arrangements would have to take account of shortages.

Access to Computerized Systems

Access to the system. Question 26 asked schools that have computerized systems how students were scheduled to use it. The results are shown in Table 55. The figures are percentages of schools that said in Question 23 that there were terminals at the school. Multiple responses were allowed.

Apparently much freedom exists. The most frequently used method is by student request, employed by over 80 percent of the schools with terminals. Guidance counselors and teachers also assign students to the terminals with considerable frequency--counselors in over 70 percent of the schools (except in Stratum 2) and teachers in over 50 percent. If the response "Students are not scheduled" means that students can get on the terminal with no appointment, this arrangement exists together with the others in a few schools. "Students not scheduled" could mean that the computers are used for batch processing of student requests for information and that consequently students never interact with the computer.

Assistance at the terminal. Table 56 shows who is available to help students once they have gained physical access to the terminal. The N's are the same as for Table 55. Again, major responsibility falls on the guidance counselors; in almost 80 percent of the schools with terminals, these counselors help students. However, secretaries and "Other" (paraprofessionals, perhaps) also help students at the terminal. At only a few schools are the computer systems regarded as capable of serving without human assistance.

In Chapter VIII, which discusses the frequency with which resources are actually used, we will point out that students using the various computer systems need staff assistance more than half the time. (See Table 67.) The only exception was DISCOVER, where the percentage of usage by students unassisted was 53 percent. The need for so much help at the terminal must make management arrangements more difficult for both the staff and students for some systems.

Availability of terminals. The availability of the computer system depends on the number of terminals at the school, the extent to which they are open for use, and the extent to which they are actually used. Questions 24 and 25 sought this information.

Table 57 shows for each stratum the number of schools having various numbers of terminals. The huge preponderance have only one or two. In Stratum 1 only two schools have as many as seven or eight, and in Stratum 3 two schools have 11 or more. In six of the schools the terminals are not available at all to students. The scarcity of terminals might severely restrict the usefulness of computer systems as a resource if there is much demand on the part of students.

How often are these terminals available and used? Table 58 shows that the terminals are open for use many more hours than they are acutally used. If we multiply the midpoints of the scale intervals by the number of schools embraced by the intervals and then add all the products, we can arrive at estimates of the total number of hours the terminals were available and the total number of hours they were used. The computation shows that in Stratum 1, terminals were available in these schools for a total of 706 hours, whereas they were used 332 hours, or 47 percent of the time. The figures are comparable for the other two strata: Stratum 2, available 517 hours, used 209 hours (40 percent); Stratum 3, available 1,284 hours, used 655 hours (51 percent). Moreover, in 31 schools the terminals are apparently not used at all by students, although they may be used by others for the benefit of students.

We do not know whether a use rate of about 45 percent of available time is good or bad.

Access to Audiovisual, Microfiche, and Noncomputerized Sorting Materials

Access to the materials. Question 31 asked schools that have audiovisual microfiche, or noncomputerized sorting materials how students were scheduled to use them. The results are shown in Table 59. The figures are percentages of schools that said on Question 28 that they had occupational information on one or another of the materials. Multiple responses were allowed.

The results are strikingly similar to what was found for computers. Student-initiated request is the most frequently used method of scheduling. Teachers play a larger role in scheduling for these materials than in scheduling for computers, probably because teachers may schedule films for use during class periods. The "students are not scheduled" response occurred less frequently (because students either have free access or no access) for these materials than was the case for computers.

Availability of materials. The numbers of filmstrip viewers, microfiche viewers, needlesorts and so on, available for student use are shown in Table 60. The data come from Questions 32, 34, and 37. It is clear that there are many more audiovisual and microfiche devices than computer terminals, as shown in Table 57, and access should be correspondingly easier. There are far fewer needlesorts than audiovisual or microfiche devices, and arrangements by students might be correspondingly more difficult for this device. However, the specialized nature of the information produced by needlesorts would probably reduce the demand to use them, and their absolute numbers are not a safe guide to inferences about their accessibility.

The number of hours that these devices are available for use and the number of hours they are actually used by students are shown in Table 61. As with computer terminals, most schools make their audiovisual, microfiche, and needle-sorts available from four to eight hours per day on the average. The modal interval is 6.01 to 8.00 hours. Use is far less than availability. If the total number of available and use hours is computed so that use can be seen as a percentage of availability, we note that the devices are seldom used as much as 25 percent of the time that they are available. The percentages for each stratum are produced in Table 62. There is a strong presumption that students who want access to these devices are not held back because of scarcity. They are more prevalent than computer terminals are and they are free more of the time.

Access to Experiential Programs

Arrangements for access. In Chapter V we saw (Table 48) that responsibility for arranging the special programs, events, or days that make up the content of much experiential career information was mostly in the hands of the guidance professionals. The director of guidance or staff, or the coordinator of career education or staff were the responsible agents in 75 percent of the schools (national estimate, but the strata were quite similar); the principal or assistant principal was responsible in 15 percent of the schools; and teachers played a small role (6 percent).

Another aspect of experiential career information is the methods used to make students aware of the experiences, simulations, and personal contacts arranged by the school. Question 46 explored this area. The results are shown in Table 63.

The table shows that a considerable variety of methods is used. Once again the professional guidance staff dominates, being the choice in over three-quarters of the schools. Direct presentations to the student body are the next most common method. Ads on radio and TV are the methods used least. Stratum 2 lags behind Strata 1 and 3 on all approaches except "No particular method."

Assistance with experiential career information. We saw in Table 48 that the supervision of exploratory work experience programs was in the hands of teachers in about 25 percent of the schools and in the hands of guidance professionals (director of guidance or staff and coordinator of career education or staff) in another 37 percent. The principal or assistant principal assumed responsibility in 7 percent. But the task was not performed at all in 20 percent of the schools, especially in those in Stratum 2.

Schools may also follow up other types of school-arranged experiences, such as simulations and personal contacts. Question 47 asked for information on this practice. The results are shown in Table 64. The table shows that the most common method is conferences with counselors (i.e., professional staff) or teachers. In about a quarter of the schools, especially in Stratum 2, there is no particular method of follow-up.

Summary

A large study could be made of the arrangements students must make to gain access to various types of career information. The data from this survey leave much of the question still shrouded in darkness. It is apparent that formal contact with career information resources is mainly the responsibility of guidance professionals--the director of career guidance or staff, or the coordinator of career education or staff. Teachers and principals also have responsibilities.

Placing students next to career information is no guarantee that they can grasp it; part of the arrangements must be to help them use it or understand it. For the most part, such assistance seems to be provided. Schools help students locate and interpret publications, use computers, and get value from work experience. Here, too, professional staff has an important role, with librarians helping with publications and teachers with the supervision of work experience.

Yet another facet of arrangements is that the career information resource be easily accessible when the student needs it. The most widely used publication, the OOH, is fairly available in schools in Strata 1 and 3, much less so in Stratum 2. When schools have computer terminals, the overwhelming likelihood is that they have only one or two. The picture is more favorable with regard to audiovisual devices, microfiche viewers, and needlesorts, which exist in greater numbers and which are apparently idle much of the time. Computerized systems are much more comprehensive in what they attempt than these other devices are, and difficulty of access to computers would be that much more detrimental to the user.

What is not known about "arrangements" is the actual machinery whereby students are given access to the resources and the competence of the professional staff that controls so large a portion of it. Is the process of getting on the computer or gaining access to the microfiche viewer so complicated and threatening that students are discouraged from even trying? Is someone looking over their shoulders, increasing the likelihood they will behave stereotypically? The answers to these and many other questions like them would require a separate study.

Table 53

Methods of Cataloguing Resources

	Method	Stratum 1	2	3	NE
The school's own grouping system	Alphabetical by title of occupation	72	65	73	68
	Type or level of education or training	32	35	35	35
	Related school subjects	28	21	29	24
	Interest fields	33	32	37	34
	Type of industry or employer	32	27	33	30
	Other	5	5	7	6
Prepared systems	Dewey decimal system	35	31	28	31
	D.O.T. numbers	48	49	56	51
	Work or worker trait groups	8	8	10	9
	Alphabetized D.O.T. subject headings	20	15	24	18
	SRA job-family classifications	23	19	21	20
	Categories used by vocational interest inventories	14	11	14	12
	U.S.O.E. categories	9	7	13	9
	Standard industrial classification	4	3	4	3
	U.S. Census classifications	4	1	3	2
	Other	6	5	6	6

All figures are percentages of schools in the stratum.
Totals sum to more than 100 because schools may use more than one system.

Table 54

Number of the Latest Edition of the Occupational Outlook Handbook at the School

Number of copies available	Stratum			
	1 N = 540	2 N = 668	3 N = 686	National estimate
None	4[a]	8	2	6
One	15	27	15	22
Two	19	19	18	19
Three	8	10	10	10
Four	7	5	9	6
Five or more	29	10	32	19

[a] Figures are percentages of the schools in the stratum.

Table 55

Methods of Scheduling Students to Use Computer Terminals

	Stratum		
Method of scheduling	1 N = 141[a]	2 N = 96	3 N = 233
Student initiated request	85	82	86
Assigned by teacher	55	58	51
Assigned by guidance counselor	74	64	72
Other	22	18	19
Students are not scheduled	16	14	11

[a] N = number of schools in the stratum that had terminals at the school. All figures are percents.

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Table 56

School Staff Who Help Students Use the Computer

	Stratum		
Person who helps	1 N = 141[a]	2 N = 96	3 N = 233
Guidance counselor	79	79	78
Secretary	25	31	33
Other	57	56	64
Students can use it without help	18	34	21

[a] N = number of schools in the stratum that had terminals at the schools. All figures are percents.

Table 57

Number of Terminals Available for Student Use

Number of terminals available	Stratum		
	1	2	3
11 or more	0[a]	0	2
9 - 10	0	0	0
7 - 8	2	0	3
5 - 6	3	0	5
3 - 4	9	5	18
1 - 2	120	90	200
None	5	0	1

[a] Number of schools that have the number of terminals designated by the figure in the row

Table 58

Number of Hours Terminals Open for Use and Used

Average number of hours per day	Stratum					
	1		2		3	
	Available	Used	Available	Used	Available	Used
More than 10	3[a]	0	5	0	8	0
8.01-10.00	1	0	5	1	9	0
6.01-8.00	55	13	42	5	107	26
4.01-6.00	49	21	13	12	55	52
2.01-4.00	10	32	17	21	27	48
0.01-2.00	7	40	12	42	18	69
0.00	10	15	0	5	3	11

[a] All figures are the number of schools reporting availability or use of a terminal for the number of hours per day shown by the corresponding interval in the first column.

Table 59

Methods of Scheduling Students to Use Audiovisual, Microfiche, or Noncomputerized Sorting Materials

Method of scheduling	Stratum 1 N = 361[a]	 2 N = 465	 3 N = 501
Student-initiated request	85	84	89
Assigned by teacher	71	66	71
Assigned by guidance counselor	67	68	71
Other	23	15	21
Students are not scheduled	13	12	10

[a] N = number of schools in the stratum that had occupational information on at least one of these materials. All figures are percents.

Table 60

Number of Audiovisual Devices, Microfiche Viewers, and Sets of Needlesorts Available for Student Use

	Device								
	Film viewers, cassette players			Microfiche viewers, reader-printers			Sets of needlesorts		
	Stratum			Stratum			Stratum		
Number of devices available	1	2	3	1	2	3	1	2	3
11 or more	77[a]	56	78	2	2	2	1	1	4
9-10	37	36	32	0	1	5	2	1	0
7-8	21	17	22	4	0	6	0	0	0
5-6	61	76	93	13	6	12	6	6	4
3-4	74	105	116	39	26	68	2	8	23
1-2	62	127	119	179	261	245	58	122	106

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[a] All figures are the number of schools reporting that they have the number of devices shown in the first column.

Table 61

Number of Hours of Availability and Actual Use by Students of Audiovisual Devices, Microfiche Viewers, and Needlesorts

Average number of hours per day	Devices																	
	Film viewers, cassette players						Microfiche viewers, reader/printers						Needlesorts					
	hrs. avail.			Hrs. used			Hrs. avail.			Hrs. used			Hrs. avail.			Hrs. used		
	Stratum			Stratum			Stratum			Stratum			Stratum			Stratum		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
More than 10	1[a]	2	4	0	0	0	0	0	3	0	0	0	0	1	1	0	0	0
8.01-10,00	6	3	13	0	0	1	5	4	12	0	0	0	0	1	3	0	0	0
6.01-8.00	152	198	258	9	5	11	127	160	194	7	7	9	31	74	78	1	0	2
4.01-6.00	148	166	156	32	12	18	87	108	115	20	7	20	33	45	44	4	4	5
2.01-4.00	19	26	18	42	38	55	8	11	8	30	32	46	3	9	4	6	11	15
0.01-2.00	10	21	14	173	267	301	2	8	6	113	195	207	0	4	5	43	94	83
0.00	7	12	7	36	58	42	31	25	28	57	45	61	50	50	41	55	64	64

[a] All figures are the number of schools reporting availability or use of a device for the number of hours per day shown by the corresponding interval in the first column.

Table 62

Student Use as a Percentage of Availability for Audiovisual Devices, Microfiche Viewers, and Sets of Needlesorts

	Device								
	Film viewers, cassette players			Microfiche viewers reader/printers			Needlesorts		
Stratum	Total hrs. avail-able	Total hrs. used	Usage (per-cent)	Total hrs. avail-able	Total hrs. used	Usage (per-cent)	Total hrs. avail-able	Total hrs. used	Usage (per-cent)
1	1935	522	27	1395	352	25	391	88	23
2	2362	476	20	1737	375	22	793	147	19
3	2811	642	23	2101	508	24	820	167	20

Table 63

Methods of Informing Students About School-Arranged Experiences

Method	Stratum 1 N = 540	 2 N = 668	 3 N = 686	 National estimate
Listed in course offerings	45[a]	35	50	40
Presentation to student body	64	47	59	52
Presentations to parents	28	15	29	21
Ads on radio and TV	10	8	4	7
Teachers recommend students	42	27	34	30
Conferences with counselors	80	72	82	76
Other	19	12	24	16
No particular method	9	15	7	12

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[a] All figures are percentages of schools in the stratum.

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Table 64

Methods of Following up Students Who Participate in School-Arranged Experiences

Method of follow up	Stratum 1 N = 540	 2 N = 668	 3 N = 686	 National estimate
Conferences with counselor or teacher	61[a]	53	51	56
Group discussions	43	31	36	34
Test or questionnaire	30	20	26	23
Oral student report	37	24	30	27
Written student report	34	25	36	29
Other	5	4	7	5
No particular method	21	28	23	26

[a] All figures are percentages of schools in the stratum.

CHAPTER VII

QUESTION B4

Question b4 is "What types of schools have what management arrangements for career information resources?"

School types, for the purposes of this analysis, have already been defined and discussed for Question a3 (Chapter IV). Unfortunately, the characteristics of management arrangements are not definable in a similar fashion, and it was impossible to analyze the data sufficiently to yield unambiguous results. Therefore this report leaves the question unanswered except for what can be inferred from the previous chapter.

We should point out, however, that arrangements, as construed in that chapter, were quite consistent for all resources and all strata. Arrangements were mostly, but by no means exclusively, in the hands of the professional guidance staff except for resources involving school-arranged experiences, where teachers played a larger part. The uniformity across all strata suggests that management arrangements probably do not differ much by school type except, perhaps, for small numbers of schools.

CHAPTER VIII

RESEARCH QUESTION C1

Question C1 is "How often are resources used by students? Does frequency of use vary by type of resource?" These two parts of the question overlap and will be answered together.

Data for the answers come primarily from the student questionnaire. Readers are reminded that the students may not be a representative sample of all students in the sample frame because some of the schools failed to select subjects randomly. The extent of nonrandom selection is not known, nor is the direction or amount of bias introduced by it. Therefore no attempt was made to derive national estimates from the student data. They are simply treated as the responses of a large number of students (4,882), with over 1,500 in each stratum.

The N's vary from question to question because students who were attending schools where a resource was unavailable were instructed to ignore questions about how often they used it. Some students did not branch properly. That is, they indicated that they had never used a resource or that the school did not have it, but they answered questions about it anyway. For this report the responses of such students have been eliminated from analysis of the questions they should not have answered.

Frequency of Use

Publications. Question 13 asked students how frequently they had used reference books; magazines; pamphlets, briefs, or kits; and reports of former students. Table 65 shows the results. The figures are percentages of students in each stratum who branched properly to Question 13.

The results are remarkably similar within each stratum. The most frequently used kind of publication is reference books. Some of this popularity is no doubt due to prevalence of the Occupational Outlook Handbook, which appears in over 90 percent of the schools. Well over 40 percent of respondents say they have used a reference book at least a few times. The next most popular publication is magazines, used at least a few times by about 40 percent of students. Pamphlets, briefs, and kits are used even less; about 35 percent report using them a few times. The strata are quite similar on these three types of publications. The "Never" responses range between 20 and 30 percent and occur least frequently for reference books and most frequently for pamphlets, briefs, and kits. Stratum 3 lags behind the other two strata on frequency of use.

The most striking feature about reports of former students is the "Never" response. In Stratum 1 it is 64 percent, and in the other two it is 76. Only 15 percent of students in Stratum 1, 10 in Stratum 2, and 9 in Stratum 3 have read these reports a few times. Although the data on use of reports are striking, they are not surprising. In the discussion of Table 48 in Chapter V it was noted that in 43 percent of the schools (national estimate) the task was not performed of making data on former students available to current ones. Also Item B13, write-ups by former students, are listed as available by only 3 percent of the schools.

Computers. Question 20 asked for the same information about computers that Question 13 asked about publications. The results are shown in Table 66. It may be recalled that fewer than 25 percent of the schools (national estimate) said that they had access to computer terminals or printers for retrieving occupational information, and only 21 percent had them actually at the school. The N's are consequently much smaller for computers than for publications.

Table 66 shows that in all strata use of computers by students who are aware of their presence is less than use of publications by students who are aware of them. Use is heaviest in Stratum 3 (where 34 percent of the schools have terminals, as opposed to 26 percent in Stratum 1 and 14 percent in Stratum 2), but 44 percent of the students in Stratum 3 who could use the computer have never used it. In Stratum 1 it is 51 percent and in Stratum 2 it is 52 percent.

One possible explanation for this discrepancy is that some computer systems seem to be more difficult to use than others with the result that students use them less or use them indirectly through batch processing (that is, they fill out forms showing what they want to know and get the answer the next day) or use them only with the assistance of someone who sits with them at the terminal. In a study of computer use in guidance in New York City, Heller and Chitayat (1975) reported that students were unable to master the Student Guides that explain how to interact with the Guidance Information System (GIS) they were using. Someone had to be with them at the terminal or had to process their requests for information. GIS was one of the two computer systems named most frequently in the study (by 11.16 percent of the schools in the national estimate, versus 11.74 percent for "Your state system"; no other system was named by as many as 2 percent of the schools).

We may explore this matter further by looking at the way schools with different systems responded to Question 21 of the school questionnaire, which asked for an estimate of the percentage of the system usage by students unassisted at the terminal, by students with staff assistance, and by staff to gather information for later transmittal to students. The responses to Question 21 were analyzed for schools in all strata that had one and only one of the computer systems categorized as items G1-G8 of Question 11. Schools with more than one system were excluded because responses would be confounded.

The results of the analysis are shown in Table 67. The N's for some of the systems are very small, and CHOICES does not appear at all because only one school in Stratum 2 had it. The percentage figures in the table should be treated with caution. They are based on the estimates of the person who filled out the questionnaire, not on hard data. Also, the number of "No responses" varied from item to item.

Table 67 shows that there is indeed some variation in the systems' capability for serving students without the assistance of a staff member. In the 10 schools that have DISCOVER, 53.2 percent of usage was by students unassisted; for COIN the unassisted usage was only 23.4 percent, and for GIS it was 25.5. For DISCOVER, 18 percent of usage was by students with the assistance of a staff member; for COIN and GIS, the figures were 37.4 percent and 38.5 percent. DISCOVER was rarely used for the students' benefit without the physical presence of the student -- i.e. by a staff member. COIN was used this way over 30 percent of the time, and GIS 28.8 percent of the time. CVIS, which does not contain as much occupational information as the other systems, and "Your state system" (which might have been based on the Oregon CIS, on GIS, or on some system not specified in this report), ranked between DISCOVER and COIN or GIS in its capability to run without staff assistance.

Frequency of use of a resource would undoubtedly be affected by the convenience of access. If students have to go through layers of staff to get information from the computer, which is a most versatile resource because it can match occupational characteristics with the students' specifications, use would probably be inhibited. The students' behavior at the terminal might also be affected if they were conscious of having to transmit their requests through a staff member. Table 66 showed that nearly 50 percent of the students who knew a computer system was available had never used it. DISCOVER is one of the most interactive systems examined for this study because it contains prompts that enable the students to proceed without having to consult a book to find out what message the computer is waiting for. This may be a desirable feature in computer-based guidance.

Microfiche. Question 26 asked students how often they had sought occupational information from a microfiche. Again, the N's are quite small; fewer than 40 percent of the schools (national estimate) indicated that they used microforms, and presumably even fewer used these resources in the form of microfiche. Table 68 shows the students' responses to Question 26.

The strata differ very little on this question. In each stratum 50 percent or more of students who believed that occupational information was available to them on microfiche had never actually had recourse to it. But if they used this source once, they were likely to use it again, for the sum of "A few times" and "Many times" is greater than the frequency for "Once" in all strata.

Sorting cards. Table 69 shows for sorting cards (needlesorts and keysorts) the information about frequency of use comparable to that for publications, computers, and microfiche. The N's now become quite small. We have already noted that sorting materials are among the least common categories of career information resource.

Although needlesorts are not so common, where they are available they seem to be used with greater frequency than computers or microfiche without reaching the level of use of publications. The "Never" response ranges from 32 in Stratum

1 to 44 in Stratum 3. Except in Stratum 3, students who have used needlesorts once return.

It should be borne in mind that, compared with publications, computers, and microfiche, needlesorts do not contain much factual information about occupations. Their primary function is to cluster occupations on the basis of specifications imposed by the student. It is perhaps this ability to "personalize" information that makes sorting cards more popular among their users than microfiche are among its users. Needlesorts are usually used in conjunction with a publication that contains detailed information.

Counselors. All students in each stratum were asked (Q 40) how often they had talked with counselors about various matters, including occupations, preparing for occupations, and job seeking. The responses are shown in Table 70.

It is apparent that the subject of high school courses far exceeds any other matter brought to a counselor. (Of course, this subject is not unrelated to choice of occupation.) The next most common subject for talks with a counselor is preparing for an occupation. Talking about occupations themselves occurs at least once in a little less than half the cases, and about where to get a job occurs at least once in more than half the cases.

As occupational resources counselors are apparently not used as much as publications. They are, on the other hand, important adjuncts to the career decision-making process. We have already seen in the tabulation of responses to Question 4 of the school questionnaire that counselors are regarded as "directing" students "A great deal" by 60 percent or more of the schools (national estimate) in each of the following areas: general occupational information, specific occupational information, answering questions about occupations, and assisting with career decisions. Moreover, 50 percent of the schools see counselors as directing students "A great deal" in interpreting occupational information. It seems clear that counselors are an important resource, but it is hard to tell how frequently they are used in comparison with nonhuman resources because their function is different.

Other occupational information resources. The relative frequency of use of other sources of occupational information cannot be determined with any accuracy because they are not the sort of resource that students use more than once or that are used to get general occupational information. Data were collected, however, on whether students had been exposed to them at all. The results are shown in Table 71.

It is apparent that students are exposed to films and special courses that concern occupational information more frequently than to the other resources. Over 60 percent of the students have seen a film or videotape, and between 40 and 50 percent have attended special courses on occupational information. The least used resources are those that put the student right on the job site: work-study, which finds a place in about 15 percent of the schools, and job shadowing (i.e., following a worker as he or she works) in about 25 percent.

Summary

The answer to research question C1 is that students use the various resources with different frequencies and that use does seem to vary with type of resource.

There are some differences in the frequency with which students in different strata use the resources. (a) Students in Stratum 1 use reports from former students more frequently than do students in the other two strata -- 37 percent have used them at least once, versus 22 percent in Stratum 2 and 20 percent in Stratum 3. (b) Computers are more prevalent in Stratum 3 and are used at least once or more by a greater proportion of students who are aware of them — 56 percent in Stratum 3, versus 48 percent in Stratum 2 and 47 percent in Stratum 1. (c) Sorting cards are used proportionately more frequently in Stratum 1 than in the other two strata; they are used at least once by 68 percent of the students who know about them, as compared with 61 percent of the students in Stratum 2 and 55 percent in Stratum 3. (d) Talking with a counselor about where to get a job occurs most frequently in Stratum 1; 46 percent of the students in that stratum have discussed the subject at least once, as compared with 40 percent in Stratum 2 and 35 percent in Stratum 3. (e) Students in Stratum 3 participate least in each of the categories of experiential activities.

Are these variations associated with type of school? Such a relationship would be hard to pin down from our data because, even though there are differences, uniformity is more the rule than difference. We saw in Chapter IV that the most common school types in Stratum 1 were characterized by an enrollment of more than 750, more than four FTE counselors, more than half the students in academic programs, and the presence of a head of guidance. The most common types in Stratum 2 were characterized by an enrollment of less than 750, and in Stratum 3 enrollment was not a pronounced characteristic of the most common types. It may be, then, that schools with large enrollments have greater usage of reports of former students, greater usage of noncomputerized sorts, and more frequent talks with guidance counselors about where to get a job. It is just as likely, however, that the nature of the stratum, not school type as defined in Chapter IV, is the major determinant. Stratum 1 is center city high poverty, where unemployment far exceeds the national average. Students in this environment would be more likely to keep their ears to the ground -- to want feedback about jobs from former students and counselors. Conclusions must be speculative in the absence of more precise data.

The most frequently used formal resources available at the school are publications, and the most frequently used among publications are reference books, probably because of the prevalence of the OOH. A larger variety of publications exist than any other resource, more schools have them, and greater numbers of students use them. That is, opportunities for use are much greater.

Use of computers, microfiche, and sorting cards is less, whether use is regarded as the percentage of potential users or as the absolute number of users. Only about 21 percent of the schools have terminals, and, except in Stratum 3, less than half the students who knew about the computer system had used it. The situation is similar for microfiche -- the number of students using them is small, and only about half the students who know about them have used them. A somewhat larger proportion of students who know about sorting cards use them, but the total numbers are small. The counselors' role as a career information resource is most pronounced in helping students select high school courses. Students talk with counselors far less frequently about occupations, preparing for occupations, or getting a job.

Over 60 percent of students in each stratum had seen a film or videotape about occupations. Over 40 percent had taken special courses and had met with employed workers. Other activities of an experiential sort occurred less frequently, but none fell below 12 percent (participants in work study, Stratum 3). These resources are quite different from publications, computers, microfiche, and so on, and comparison on the basis of frequency of use may not be so illuminating as comparisons on purpose of use.

Table 65

Frequency of Use of Various Publications by Students

Publication	Stratum 1 N = 1374				Stratum 2 N = 1555				Stratum 3 N = 1729			
	Never	Once	A few times	Many times	Never	Once	A few times	Many times	Never	Once	A few times	Many times
Reference books	21[a]	22	46	8	22	22	47	7	23	24	44	6
Magazines about occupations	24	22	40	11	29	20	42	7	31	22	38	6
Pamphlets, briefs, or kits about occupations	32	20	35	9	34	20	36	7	34	21	34	7
Reports about their jobs by former students	64	12	15	5	76	10	10	2	76	9	9	2

[a] All figures are percentages of the students in the stratum who properly answered Question 13. Figures do not add to 100 because "No responses" are not shown in the table.

Table 66

Frequency of Use of Computers

	Frequency of Use			
	Never	Once	A few times	Many times
Stratum 1 (N = 404)	51[a]	21	21	5
Stratum 2 (N = 303)	52	25	17	6
Stratum 3 (N = 525)	44	28	22	6

[a] Frequencies are the percentages of the students in the stratum who indicated that at their school information was available from a computer. Figures may not total 100 because "No responses" are not shown in the table.

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Table 67

Mean Percentage of Usage of Computer Systems Devoted to Students Without Assistance, Students with Assistance, and Staff for Transmittal to Students

Mode	COIN		CVIS		DISCOVER		GIS		State System		County System		Other	
	N	Use[a]	N	Use	N	Use	N	Use	N	Use	N	Use	N	Use
Student unassisted	15	23.4	22	40.5	10	53.2	158	25.5	111	41.7	15	33.4	9	40.1
Student assisted	15	37.4	23	30.5	10	18.0	165	38.5	122	38.8	16	25.1	9	53.7
Staff to transmit to student	15	30.9	16	23.3	9	7.8	155	28.8	102	18.6	16	37.9	12	33.7

[a] Mean percentage of usage shown in Question 21 (respondent's estimate).

Figures do not add to 100 because number of "No response" varied from item to item.

Table 68

Frequency of Use of Microfiche

	Frequency of Use			
	Never	Once	A few times	Many times
Stratum 1 (N = 407)	50[a]	20	26	3
Stratum 2 (N = 358)	54	20	22	3
Stratum 3 (N = 536)	50	24	21	5

[a] Frequencies are the percentages of the students in the stratum who indicated that at their school information was available on microfiche. Figures may not total 100 because "No responses" are not shown in the table.

Table 69

Frequency of Use of Sorting Cards

	Frequency of Use			
	Never	Once	A few times	Many times
Stratum 1 (N = 323)	32[a]	26	35	7
Stratum 2 (N = 360)	39	26	31	4
Stratum 3 (N = 394)	44	28	23	4

[a] Frequencies are the percentage of the students in the stratum who indicated that at their school information was available from sorting cards. Figures may not total 100 because "No responses" are not shown in the table.

Table 70

Frequency of Talks with Counselors About Various Subjects

Activity of counselor	Stratum 1 N = 1598				Stratum 2 N = 1555				Stratum 3 N = 1729			
	Never	Once	A few times	Many times	Never	Once	A few times	Many times	Never	Once	A few times	Many times
Talked about high school courses	17[a]	17	41	24	18	18	43	20	15	16	45	22
Talked about occupations	47	18	25	8	46	17	30	6	47	18	28	6
Talked about preparing for an occupation	37	17	30	14	38	18	33	9	39	17	32	10
Talked about where to get a job	51	15	22	9	59	15	20	5	63	13	17	5
Talked about attendance or discipline	73	11	11	3	82	7	7	2	75	10	11	3
Talked about personal problems	76	10	8	3	81	8	7	2	78	9	9	3

[a] All figures are percentages of responding students in the stratum. Figures may not total 100 because "No responses" are not shown in the table.

Table 71

Number and Percentage of Students Who Have Participated in Experiential Activities

	Stratum 1 (N = 1598)		Stratum 2 (N = 1555)		Stratum 3 (N = 1729)	
Type or resource	N	Percent of "Yes" response	N	Percent of "Yes" response	N	Percent of "Yes" response
Film or videotape	1056	66	1063	68	1060	61
Simulation	424	27	353	23	380	22
Special course	804	50	743	48	707	41
Gone to a career day	700	44	589	38	615	36
Participated in work-study	260	16	215	14	213	12
Tour of a business	621	39	660	42	578	33
Takes part in job shadowing	420	26	420	27	393	23
Met with former students	481	36	454	29	419	24
Met with employed workers	778	49	733	47	686	40

CHAPTER IX

RESEARCH QUESTION C2

Question C2 is "How often are resources used by a student?" Does frequency of use differ for different categories of students?" There is obvious overlap with Question C1, discussed in the previous chapter, and the first part of the question was answered there: Different school resources are used with different frequencies, the most common being reference books, magazines, pamphlets among the publications; and film or videotape among experiential activities. In this chapter it will be convenient to draw mainly on the answers to Question 48, which asked students to show where they got the information about the occupation that, in Question 46, they had said they were thinking of entering. Responses to Question 48 were not limited to school resources, and therefore this chapter discusses kinds of resources that have not been considered before in this report.

Designation of Types

For the purpose of arriving at types, students were classified in either of two groups on the basis of six variables: (a) 10th and 11th grade versus 12th grade; (b) academic versus nonacademic; (c) high reading ability (upper middle fifth or above) versus not high as determined by self-assessment; (d) plans for going to college versus no plans for college; (e) sex; (f) white versus nonwhite. Consequently, 64 (2^6) types are possible. As with school types, 25 combinations accounted for most of the students.

Responses to the 37 possible sources of information listed for Question 48 were then analyzed to see what characteristics of a type appeared to be associated with each source. In reviewing the findings, the reader should bear in mind that the research question asks whether frequency of use varies by student type. The most frequently used resources named in Question 48 are parents or relatives (Item 7); friends (Items 5 and 8); teachers (Item 1); employees (Item 9); counselors (Item 3); books, magazines, pamphlets, reports (Item 12); and films (Item 13). The above listing is not necessarily in order of frequency, since the relative frequency of use is almost impossible to determine.

Type by Number of Resources Checked

The number of students marking any particular source of information will depend, to some extent, on the number marking many sources. For example, if students of type A tend to mark a disproportionately large number of resources, then they are more likely to mark resource n than are students of other types.

The first analysis, therefore, looked at the mean number of resources checked by each of the 25 most common student types. Those students checking the largest number of resources (slightly more than 10, on the average) can be characterized as 12th grade white females with high reading ability who plan to go to college but who are in a nonacademic high school program. Those students checking the least number of resources (slightly more than 6, on the average) tended to be 10th or 11th grade white males with low reading ability who plan to go to college but are in a nonacademic program. In general, 12th graders checked more resources than did 10th and 11th graders. There was no pattern by academic versus nonacademic high school program. Only in the extremes was there a pattern by reading ability--those claiming the highest reading ability checking the most resources. No pattern held for plans after graduation or for race. A definite sex pattern did emerge, with females tending to mark more resources.

There was remarkable consistency across all student types in the sources used most frequently and least frequently. Of the 25 most common student types, 17 marked source 7 (parents or other relatives) most often. For instance, 86 percent of the 10th and 11th grade white high reading ability females not planning to go to college marked that source. The other most frequently marked source was number 12 (books, magazines, pamphlets, and reports). Eight of the 25 student types used this source the most frequently. These eight did not differ in any significant way from the other 17 except that they included a slightly greater proportion of nonwhites.

Those sources checked least often were 3, 10, 14, and 19: principals. employment service representatives, microfiche, and the state employment office. There was no particular pattern of student characteristics associated with the source least used.

The second analysis examined the percentage of students of each type checking each specific resource.

Source 1: Teachers

The greatest percentage of students indicating that they used teachers as a resource were 12th grade white females with high reading ability who plan to attend college but are not in an academic program. Again, this is the same group who checked the greatest number of resources. Of this group, 74 percent checked "teachers."

The lowest percentage (30 percent) of students using teachers as a resource were also the same as those using fewest resources--10th or 11th grade white males with low reading ability who plan to go to college but are in a nonacademic program.

In general, students who used teachers tended to be white females with high reading ability. Lowest were white males with low reading ability.

Source 2: Counselors

The pattern of students using counselors is somewhat different. The strongest pattern is in reading ability with the highest ability students using counselors the most. There is a tendency for those in an academic program to use counselors more than those in other programs.

The percentage checking counselors as a source ranged from 20 percent to 57 percent, with the lowest being 10th and 11th grade white males with high reading ability in a nonacademic program and not planning to go to college. The greatest proportion of students using counselors were again 12th grade white females with high reading ability planning to go to college.

Source 3: Principal or Assistant

No pattern emerges for this resource. Few students checked this category. The highest number was 6 percent of the 10/11th grade nonwhite females in a nonacademic program with low reading ability and not planning to go to college.

Source 4: Librarian

Marking this source were 24 percent of the 10/11th grade nonwhite males with high reading ability in an academic program and planning to go to college. The lowest group (5 percent) was 12th grade white males with high reading ability in a nonacademic program and not planning college.

The most pronounced pattern was that nonwhites tended to use the library as a source more often than whites. There was a very slight tendency for women to use it more than men and for seniors to use it less than younger students.

Source 5: Friends

No obvious pattern emerged. This source is used so commonly that a breakdown by distinctive types would be unlikely.

Source 6: Someone Else at School

Again, no pattern emerged. Only about 12 percent of the students checked this response.

Source 7: Parents/Relatives

There was a pronounced tendency for those in an academic program to use parents and relatives frequently as a resource. Of the 10/11th grade white females with high reading ability in an academic program and planning to go to college, 86 percent checked this source. Only 53 percent of the 12th grade non-academic high reading ability white females not planning college marked parents and relatives.

In addition, white students tend to use their parents more often than do nonwhite students.

These results are somewhat expected. So many students turn to this resource that one would not expect responses to be classifiable by types.

Source 8: Friends Out of School

Twelfth graders are slightly more inclined to talk with friends outside of school than are younger students. And white students, particularly those not planning to go to college, are also likely to talk with friends outside of school. Neither of these patterns is very pronounced, however.

Source 9: Someone in Line of Work

The most clear-cut pattern shows 12th grade white students, particularly college-bound females, to be more likely to use as a resource someone who is in a line of work that interests them. College-bound white males, by contrast, are far less likely to do so. On the other hand, white students of either sex who are not college bound are less likely to use such a person as a resource. Females planning to go to college are more likely to use them than college-bound white males. Of the 12th grade white females in an academic program and planning to go to college 70 percent use a person in their prospective line of work. Only 33 percent of the 10/11th grade white male college-bound students do this. The table below shows the most common relationships:

High relationship: college-bound, white, female
Medium relationship: noncollege-bound, white, either sex
Low relationship: college-bound, white, male

Source 10: Employment Service

This source is not often checked. The highest percentage checking it (8.6 percent) was 10/11th grade nonwhite females with low reading ability in a non-academic program and not planning to go to college. In general, nonwhites checked it more than whites, and females more than males.

Source 11: Someone Else Outside School

Tenth and eleventh graders were less likely to use this resource than twelfth graders. No other pattern was apparent.

Source 12: Books, Magazines, Pamphlets, Reports

Whites use these resources less than do nonwhites. Also, males use them less than females do.

The highest incidence of use was 79 percent from 10/11th grade nonwhite males of high reading ability in an academic program and planning to go to college.

The lowest incidence was 10/11th grade white males of low reading ability in a nonacademic program but planning to go to college.

Source 13: Films, Tapes, Cassettes

Several patterns are found, as follows:

- (a) Whites use these resources less than nonwhites.
- (b) Females use them more than males.
- (c) College-bound students use them less than noncollege-bound.
- (d) Students in an academic program use them less than nonacademic students.

Highest incidence of use was 27 percent among 10/11th grade nonwhite females with low reading ability in a nonacademic program and not college bound. Lowest was 11 percent among 12th grade white females with high reading ability planning to go to college, but not in an academic program.

Source 14: Microfiche

No strong pattern became evident. Some tendencies appeared as follows:

- (a) There was a slightly higher number of whites than nonwhites.
- (b) There was a very slight tendency for 10/11th grade nonacademic students to use this resource the least.
- (c) There was a very slight tendency for high reading ability college-bound students to use it more.

Source 15: Computer

Again, some nebulous patterns can be seen.

- (a) Students in a nonacademic program are least likely to use a computer.
- (b) There is a tendency for 12th graders to use it more.
- (c) Whites use it more than nonwhites.

Source 16: Other Materials at School

Whites used these the least. Also, nonacademic used them more than academic did.

Source 17: Public Library

Several tendencies were found, as follows:

- (a) Of the 10/11th grade nonwhite males who have high reading ability and plan to go to college, 64 percent reported using the public library as a source. The largest percentage of users came from this group.
- (b) The fewest users (16 percent) were 12th grade white males not planning to go to college but describing their reading ability as high.
- (c) Whites used the public library less often than nonwhites.

(d) There was some tendency for users to claim a high reading ability and nonusers to report a lower ability.
(e) White males used the library the least, followed by white females. The most frequent users were nonwhite females.
(f) Users tended also to be college bound and to have high self-reported reading abilities.

Source 18: Career Center

One very strong pattern emerged: Nonwhites used a district or regional career center more than whites. There were no other observable patterns.

Source 19: State Employment Office

Six observations are worth notice:

(a) Using this resource most (11 percent) were 10/11th grade nonwhite females with a high reading ability and planning to go to college.
(b) Those using it least (1 percent) were 12th grade white females who were also college bound and of high reading ability.
(c) There was a slight tendency for 10/11th graders to use it more than 12th graders.
(d) There was also a slight tendency for low reading ability students to use it more than high ability.
(e) There was a slight tendency for users not to be college bound.
(f) There was a pronounced relationship between race and usage. Nonwhites use the state employment office more than whites do.

Source 20: Other Place Outside School

No pattern became clear, but the average group percent marking this "resource" ranged from 22 percent to 39 percent.

Source 21: Career Days

These patterns were found:

(a) The greatest percentage (51 percent) using career days as a resource were 10/11th grade nonwhite males with high reading ability planning to go to college and in an academic program.
(b) Those using it least (10 percent) were 10/11th grade white males with low reading ability but still planning to go to college.
(c) There was a tendency for white 10/11th graders to use it the least, and nonwhite 10/11th graders to use it the most.
(d) There was a tendency for females to use it more than males.

Source 22: Career Clubs

The greatest percentages using career clubs were 10/11th grade nonwhite academic college-bound high reading ability females (14 percent) and males (12 percent). Also, there was a slight tendency for nonwhites to use them more than whites. There was a tendency for those planning not to go to college to use them more than college-bound students.

Source 23: Classes

The following tendencies were found:

(a) Nonwhites use this resource more than whites.
(b) Females use it more than males.
(c) There is a slight tendency for those in nonacademic programs to get information from classes in career planning.
(d) Twelfth graders are somewhat less likely to get their information from courses in career planning.

Source 24: Job Shadowing

These tendencies emerged:

(a) Nonwhites more often get occupational information from job shadowing than do whites.
(b) There is a tendency for women to get information from job shadowing more than men.
(c) Those in nonacademic programs tend to use job shadowing the most.

Source 25: Visits to Work Sites

The group using visits to work sites most frequently (30 percent) were 12th grade white females with low reading ability and not planning to go to college. Those using it the least were 10/11th grade white males of low reading ability in an academic program and planning to go to college.

The patterns are rather complex:

(a) Whites constitute both the lowest and highest percentage of students using work site visits. Tenth and eleventh grade whites are the lowest, and twelfth grade whites are the highest. Nonwhites, particularly 10/11th graders, are in the middle.
(b) There is a slight tendency for college-bound students to use it less.
(c) There is also a tendency for 12th graders to use it more than 10th or 11th graders.

Source 26: Work-study

(a) The strongest pattern relates to grade, with 12th graders using work-study programs more than 10/11th graders.
(b) Race is also a U-shaped curve, with whites using work-study both the least and the most. The nonwhites using it the most tend to be 12th graders.
(c) Those with high reading ability use it the most.

The greatest users are 12th grade white females with high reading ability who do not plan to go to college (21 percent) and who do plan to go to college (18 percent). The fewest students using work-study are 12th grade white college-bound females (less than one percent).

Source 27: Volunteer Work

(a) Those least likely to use volunteer work as a career information source are 10/11th graders.
(b) Those in nonacademic programs are more likely to use it.
(c) There is a slight tendency for women to use it more than men.
(d) Those using it the least are 10/11th grade white males who plan to go to college (2 percent).

Source 28: Former Students

(a) Nonwhites use former students as a resource more than whites do.
(b) Tenth/eleventh graders use them both the least and the most, with twelfth graders falling in the middle.
(c) Nonacademic students use them the least.
(d) High reading ability students use them the most.

The lowest users of former students tend to be 10/11th grade whites (usually male) in a nonacademic program.

The highest users are 10/11th grade high reading ability students, males slightly more than females.

The patterns are very complex and would require some speculation to explain their clustering.

Source 29: Workers or Employers

Twelfth grade whites in a nonacademic program use workers and employers the most; 10/11th grade white males of low reading ability but planning to go to college use workers the least.

The strongest pattern is grade, with 12th graders using workers more than 10/11th graders.

Source 30: Other Activities Arranged by the School

Nonwhite 10/11th graders most often marked other activities. Least often were white males. White females in a nonacademic program were somewhat higher, but not so high as nonwhites as a whole.

Source 31: Work

(a) The strongest pattern was with grade, with 12th graders marking work more frequently than younger students.
(b) There was some tendency for nonacademic noncollege-bound students to use it the most.
(c) There was a tendency for whites to use it the most.

Twelfth grade white nonacademic noncollege-bound males of low reading ability used work as a resource the most (55 percent). The second most frequent user was that same group having high reading ability (44 percent). The third most frequent was again the same high reading ability group, but female (also 44 percent).

Using it the least frequently were 10/11th grade nonwhite females with high reading ability planning to go to college (16 percent) and next to the lowest was that same group but having low reading ability and not going to college.

Source 32: Watching People at Work

(a) Academic students planning to go to college watched people at work the least.
(b) Females watched workers more than males.

Source 33: TV

(a) There was a tendency for more nonwhites to get information from TV than whites.
(b) Nonacademic, noncollege-bound students use TV the least.
(c) High reading ability, college bound use TV more frequently.
(d) Twelfth graders use it less than 10/11th graders.

Source 34: Movies

The most noticeable patterns are that 12th graders use movies less than 10/11th graders, and college-bound students use movies more than non-college bound. Likewise, those in academic programs use movies less. Those with the highest reading abilities tend to use movies the most.

Source 35: Clubs

(a) Tenth/eleventh graders use clubs more than twelfth graders do.

(b) High reading ability students use them more than low ability.
(c) There is a slight tendency for females to use clubs more than males do.

Source 36: General Reading

(a) Strongest pattern is with reading ability--high reading ability students use reading most.
(b) There is a slight tendency for females to use reading more than males.
(c) College-bound students definitely use reading more than noncollege-bound and students in an academic program more than those in a non-academic one.

Source 37: Other Activities Outside of School

Whites use these resources more frequently than nonwhites do. Also high reading ability students use them more than do lower ability students.

Summary of Response to Question 48

It is extremely difficult to summarize these findings in a way that will lead to useful generalizations. Table 72 has been constructed to bring together the more pronounced relationships for inspection. In the "most frequently cited" column, all the characteristics in a row constitute a type; the same statement is true of the "less frequently cited" column. For example, for Resource 1, teachers, we find that 12th grade students in nonacademic programs, claiming high reading ability, planning to go to college, and belonging to the female sex and white race use teachers with above average frequency. The characteristics that, taken together, constitute a type should not be considered in isolation. For example, from the first row for teachers we cannot conclude that being in an academic program and planning on going to college are characteristics that lead students to use teachers; these same characteristics are found in a type that uses teachers less frequently than average. Some "types" consist of only a single characteristic -- male or female, white or nonwhite, and so on. Other "types" are marked by all six characteristics. Not all the relationships discussed in the text are shown in the table; the less pronounced ones have been omitted.

One can perhaps tease out a few conclusions from the table. Students who rate their reading ability high tend to get information from resources that require reading -- the librarian, books and publications, the public library, general reading. Nonwhites use the employment service, public library, regional career center, state employment office, and job shadowing more than whites do.

Students in nonacademic programs, who will presumably be looking for employment sooner than their academic fellows, seem to get information firsthand -- from job shadowing, volunteer work, workers or employers, or work itself. But the main impression left by the table is that the student-type versus resource investigation does not lead to a pot of gold.

Sources of Specific Topics of Information

Another way to look at frequency of use is to see which resources students cited as having provided information about specific aspects of a job the students were thinking of entering. Question 46 asked students to name the job. Questions 50, 52, 54, 56, and 58 asked students to identify the source of their information about (a) educational and training requirements, (b) wages or salaries, (c) job security, (d) opportunities to help others, and (e) the usual activities of a worker on the job. Students selected their answers from the same list of resources discussed in the previous section of this chapter.

Table 73 shows the five resources (out of 37 listed) that students named most frequently; they are teachers, counselors, parents or relatives, someone in the line of work of the student's prospective job, and publications. These top five always appeared at the head of the list of resources actually used, except for information about the usual activities of a worker on a job, for which work and watching people at work were cited more frequently than counselors. The order was not always the same, except that counselors were cited least frequently among the top five, and teachers next least. Someone in the line of work was the favored source for information about job security. Publications were favored for wage and salary information (they nosed out parents by a fraction of a percentage point), and parents or relatives were favored for the other three topics of information. All of the percentages are small, however, indicating that students named a great number of different sources.

A note of caution is necessary with respect to Table 73. Students did not have equal access to all 37 resources. One would not expect, for example, computers or microfiche to be named among the top five, for only 1,232 students (25 percent) of the 4,882 students in the sample had access to a computer. By contrast, nearly all the students had access to the top five resources.

What type of students favor the various resources to get these five specific topics of information? The answer appears in Tables 74 - 78 which show the student types that designated a particular source with disproportionate frequency.

The meaning of disproportionate can be understood from the following example. On the average about 13 percent of the entire student sample marked "books, magazines, pamphlets, and reports." A disproportionately high 19 percent of the high reading ability, academic, nonwhite females marked this category. Likewise, a mere 4 percent of the nonacademic, 10th/11th grade, low reading ability but college-bound, white females marked it. As another example, just under 16 percent of the entire sample marked "parents or relatives." However, 33 percent of the 10/11th grade, nonacademic, low reading ability, college-bound white males marked this category. That percentage is disproportionately higher than average.

A few themes appear from these tables.

1. Whites get information about all five topics from parents or relatives; for information about education and training and about job security the type is white males.

2. Noncollege-bound students disproportionately cited work as a resource for all five topics; for education and training and for job activities work is cited by 12th grade nonacademic noncollege-bound whites; for wages and salaries it is cited by 12th grade nonacademic and noncollege bound; for job security and helping others, it is cited by noncollege-bound whites.

3. Whites get from computers information about education and training, job security, opportunities to help others, and job activities; for education and training, the type becomes white males.

4. Nonwhites use the public library for all topics except job security; 10th and 11th graders use it for all topics except wages and salaries.

Although relationships emerge between types and specific topics of information, it is hard to spot a strong trend. Students of all types seem to get their information from a variety of sources.

Summary for Question C2

It appears that there is a relationship between type of student and type of resource, but it is not at all clear that the relationship is so pronounced that guidance professionals can apply their knowledge for the benefit of the students.

Table 72

Types of Students Who Use Various Resources With More Than Average Frequency and Less Than Average Frequency

Resource	Types that cite more frequently than average						Types that cite frequently than average					
	Grade	Pro-gram	Read-ing	Plans	Sex	Race	Grade	Pro-gram	Read-ing	Plans	Sex	Race
1. Teachers	12	N	H	C	F	W	10/11	N	L	C	M	W
			H		F	W			L		M	W
2. Counselors			H						L			
	12		H	C	F	W	10/11	N	H	N	M	W
3. Principal or assistant	No pattern						No pattern					
4. Librarian	10/11	A	H	C	M	NW	12	N	H	N	M	W
						NW						
5. Friends	No pattern						No pattern					
6. Someone else at school	No pattern						No pattern					
7. Parents or relatives		A						N				
	10/11	A	H	C	F	W	12	N	H	N	F	W
						W						NW
8. Friends out of school	Only slight relationships											
9. Someone in line of work	12	A		C	F	W	10/11			C	M	W
										N		W
				C	F	W				C	M	W
10. Employment service	10/11	N	L	N	F	NW						
						NW						W
					F						M	
11. Someone else outside school	12						10/11					

Table 72 (cont.)

Resource	Types that cite more frequently than average: Grade	Program	Reading	Plans	Sex	Race	Types that cite less frequently than average: Grade	Program	Reading	Plans	Sex	Race
12. Books, magazines, pamphlets, reports						NW						W
					F						M	
	10/11	A	H	C	M	NW	10/11	N	L	C	M	W
13. Films, tapes, cassettes						NW						W
					F						M	
				N						C		
		N						A				
	10/11	N	L	N	F	NW	12	N	H	C	F	W
14. Microfiche		Only slight relationships										
15. Computers		Only slight relationships										
16. Other materials at school						NW						W
		N						A				
17. Public library	10/11		H	C	M	NW	12		H	N	M	W
						NW						W
			H						L			
					F	NW					M	W
			H	C							F	W
18. Regional Career Center						NW						W
19. State employment office	10/11		H	C	F	NW	12		H	C	F	W
						NW						W

Table 72 (cont.)

Resource	Types that cite more frequently than average						Types that cite less frequently than average					
	Grade	Program	Reading	Plans	Sex	Race	Grade	Program	Reading	Plans	Sex	Race
20. Other places outside school			No distinctive pattern									
21. Career days	10/11	A	H	C	M	NW	10/11		L	C	M	W
22. Career clubs	10/11	A	H	C	F&M	NW						
23. Classes						NW						W
					F						M	
24. Job shadowing						NW						W
25. Visits to work sites	12		L	N	F	W	10/11	A	L	C	M	W
	12					W	10/11					W
26. Work-study	12						10/11					
						W[a]						W[a]
			H						L			
	12		H	N	F	W	12			C	F	W
27. Volunteer Work	12						10/11					
		N						A				
							10/11			C	M	W
28. Former students						NW						W
	10/11[a]						10/11[a]					
		A						N				
			H						L			
	10/11		H		M		10/11	N			M	W

Table 72 (cont.)

Resource	Types that cite more frequently than average						Types that cite less frequently than average					
	Grade	Program	Reading	Plans	Sex	Race	Grade	Program	Reading	Plans	Sex	Race
29. Workers or employers	12	N				W	10/11		L	C	M	W
	12						10/11					
30. Other school-arranged activities	10/11					NW					M	W
31. Work	12						10/11					
	12	N	L	N	M	W	10/11		H	C	F	NW
	12	N	H	N	M	W	10/11		L	N	F	NW
	12	N	H	N	F	W						
32. Watching people at work								A		C		
					F						M	
33. TV			H	C				N		N		
	10/11						12					
34. Movies	10/11						12					
				C						N		
		N						A				
			H						L			
35. Clubs	10/11						12					
			H						L			
36. General Reading			H						L			
				C						N		
		A						N				

Table 72 (cont.)

	Types that cite more frequently than average						Types that cite less frequently than average					
Resource	Grade	Program	Reading	Plans	Sex	Race	Grade	Program	Reading	Plans	Sex	Race
37. Other activities outside school			H			W			L			NW

Legend:
For program, A = Academic, N = Nonacademic
For reading, H = High, L = Low (self-report)
For plans, C = College-bound, N = Noncollege-bound
For race, W = White, NW = Nonwhite

Very weak tendencies are not shown.

[a] Distribution is U-shaped.

Table 73

Most Commonly Cited Resources for Five Items of Occupational Information

Question Number	Information	N	Resource				
			Teachers	Counselors	Parents/ Relatives	Someone in line of work	Books, magazines pamph., reports
50	Education/training reqs.	4378	11[a]	8	16	12	14
52	Wages or salaries	3878	8	4	16	14	16
54	Job security	3185	7	4	16	13	13
56	Opportunities to help others	3358	8	5	13	13	13
58	Job activities[b]	3928	8	3	13	17	12

[a] Percentage of students who qualified to answer the question, all strata.

[b] Work was cited as a resource by 5 percent of the students. Watching people at work was cited by 4 percent.

Table 74

Resources Favored More Than Average by Various Students for Information about Education and Training Requirements

Resource	Student Type
Teachers	Low ability females in non-academic programs*
Counselors	10th and 11th graders*
Parents or relatives	White males*
Friends Outside of school	White males
Someone in the line of work of interest	White male seniors of high reading ability*
Books, magazines, pamphlets, reports	Nonwhite high reading ability females*
Computer	White males
Public library	10th/11th grade nonwhite females
Career days or assemblies	10th/11th grade nonwhite nonacademic
Visits to work sites	10th/11th grade females
Work/study or internship programs	12th grade whites
Other activities arranged by school	High reading ability
Work	12th grade white nonacademic noncollege-bound
Watching people at work	White females
Clubs (e.g., 4-H)	Whites
General reading	High ability college-bound
Other activities outside school	White male academic program
Someone else outside of school	High reading ability white seniors

*Students of this type cited the associated resource with a frequency that exceeded the average by 10 percent or more.

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Table 75

Resources Favored More Than Average by Various Student Types for Information About Wages or Salaries

Resource	Student Type
Teachers	12th grade nonwhites of high reading ability*
Counselors	High reading ability academic program
Librarian	Nonwhites
Parents or other relatives	Whites*
Friends outside school	White males of low reading ability
Someone in line of work	Whites*
Someone outside school	12th grade whites
Books, magazines, pamphlets	High reading ability females, college-bound in academic program*
Public library	Nonwhites
District or regional career center	Whites
Meeting with other workers/employees	Low reading ability
Work	12th grade nonacademic, noncollege-bound*
General reading	High reading ability, college-bound
Other activities outside school	Whites

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*Students of this type cited the associated resource with a frequency that exceeded the average by 10 percent or more.

Table 76

Resources Favored More Than Average by Various Student Types for Information about Job Security

Resource	Student type
Teachers	High reading ability, nonacademic*
Friends	Low reading ability, nonacademic
Parents or other relatives	Whites*
Parents or other relatives	White males
Friends outside school	12th grade whites
Someone in line of work	12th grade nonwhite males, academic, college-bound*
Someone else outside school	12th graders
Books, magazines, pamphlets	College-bound*
Microfiche	Whites
Computer	Whites
Public library	10/11th grade college-bound
Career days/assembly	High ability, academic program
Work	White, noncollege-bound
Watching TV	Males
General reading	High ability, academic program

*Students of this type cited the associated resource with a frequency that exceeded the average by 10 percent or more.

Table 77

Resources Favored More Than Average by Various Student Types for Information About Opportunities to Help Others

Resource	Student Type
Teachers	12th graders*
Counselors	Nonwhite females
Friends	Whites
Parents/relatives	Whites*
Someone else outside school	Whites
Books, magazines	High reading ability females*
Computer	Whites
Public library	10/11th grade, nonwhite, high reading ability, academic
Classes in career planning	White, high reading ability
Job shadowing	Whites
Meeting with former students	10/11th graders
Meeting with other workers, employers	Whites
Work	White, noncollege-bound*
Watching TV	10/11th graders
Clubs (e.g., 4H)	Whites
General reading	College-bound
Other activities outside school	Academic program

*Students of this type cited the associated resource with a frequency that exceeded the average by 10 percent or more.

Table 78

Resources Favored More Than Average by Various Student Types for Information About Usual Work Activities of a Job

Resource	Student type
Teachers	Females*
Friends	Females
Someone else at school	Females
Parents or relatives	Whites*
Friends outside school	White males
Someone in line of work	12th grade whites of high reading ability*
Someone else outside school	Whites in academic program
Books, magazines, pamphlets	Academic program*
Computer	Whites
Public library	10/11th grade nonwhites
Meeting with other workers employees	Whites
Work	12th grade white nonacademic, noncollege-bound
Watching TV	10/11th grade
General reading	College-bound
Other activities outside school	High ability

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*Students of this type cited the associated resource with a frequency that exceeded the average by 10 percent or more.

CHAPTER X

RESEARCH QUESTIONS C3 AND C4

Question C3 is "For what purposes do students use these resources and what motivates these purposes?" Question C4 is "What specific kinds of information do students seek and obtain from these resources?"

These questions are obviously intertwined, since one purpose of using a resource is to get a specific kind of information. The questions are also intertwined with questions about counselors, who serve as resources, motivators, and arrangers. Therefore, for convenience, we will answer question C4 first because that answer leads to inferences about the purposes students may have had in mind. Also, we will range to other sections of this report which bear on the two questions.

Specific Kinds of Information Sought (C4)

What information are students looking for? The students' answer to this question for each of the five categories of resources are shown in Table 79. The responses in the three strata were generally similar, and the findings are reported for all the students.

No matter which resource is used, the main thing the students are looking for is information about prerequisites for a job. The runner-up is information about wages and salary, except when the resource is activities; students using that resource want to learn about job activities more than earnings.

Generally, all the resources seem to be used in the same way. Computers are used with greater frequency than other resources for getting information about earnings and outlook; in most computer systems this information is regional (as opposed to national) and is brought up to date frequently.

Motivation for Seeking Occupational Information (Part of C3)

What prompts students to look for occupational information? This question must be answered before the subject of the purpose the student had in mind can be addressed. The question will be examined from two perspectives; first, the source from which the student heard that a resource was available, and, second, the reason why the student sought the information. The first is an aspect of motivation because, in indicating an awareness of a resource's existence, students showed that their source of information has had a demonstrable effect.

How students learned about resources. Table 80 shows how students learned that each of the five categories of resource was available at their school.

The most common fountainhead of information is the guidance counselor and staff. However, for learning about activities it is teachers. This finding is not surprising, for teachers have considerable responsibility for supervising exploratory work-experience programs, and, moreover, vocational/technical teachers would carry influence in the subjects they teach. Teachers have an important role as informants about all categories. The school librarian is also important for publications, microfiche, and sorting cards. These resources may actually be in the library. The librarian plays a smaller part with computers and activities, which do not usually involve the library.

The least effective informants are the school newspaper, teachers outside the students' own classes, and posters on a bulletin board.

Reasons for seeking information. What causes students to look for occupational information? Students' responses to Question 39, which asked this question are shown in Table 81.

The most common stimulus to search for occupational information is clearly parents or relatives. This finding comes as no surprise, considering the evidence, discussed elsewhere, that parents play a large role in career decision making. Parents are cited least frequently (by 18 percent of students) as having never stimulated the students in their search, and are cited most frequently (by 31 percent) as having stimulated them many times. The next most common stimulant is a friend. This finding is also consistent with findings discussed earlier about the importance of friends as sources of occupational information.

Formal motivators within the school are also important. If the percentages of "a few times" and "many times" are summed, class assignments (45 percent), counselors (42 percent), talk or lecture (37 percent), and film (36 percent) rank 3, 4, 5, and 6 after parents and friends. Stimulants not related to school, namely experience on the job and TV shows or movies, also rank fairly high, each affecting 35 percent of the students at least a few times.

Question 2 in Part B of the school questionnaire also asked about the effectiveness of various motivators within the school in getting students to use occupational information. The results (national estimates) are shown in Table 82. They cannot be compared directly with Tables 80 and 81 because the wording of Question 2 in the school instrument was different from the questions in the student instrument. Yet the tables cover much the same territory. There is considerable agreement among them. Students ranked counselors and teachers high as the cause of their learning that occupational information resources were available (Table 80). Also, talks with counselors and class assignments were among the most frequently named reasons (of those found at the school) for seeking occupational information (Table 81). These perceptions on the part of the students seem to agree well with the schools' perceptions that counselor and teacher referrals are "Very effective" as motivators (Table 82). It is interesting to note on Table 82 that group visits rank just below counselor referrals as effective motivators. Over 59 percent of the schools (national estimate) cite job site-tours as an information resource they use and about 40 percent of students have participated in such tours (Table 71). Students were not asked whether they had sought occupational information as a result of a group visit. Some 35 percent of them, however, had sought it more than once because of experience on a job (Table 81). Direct experience with the realities of work itself clearly plays an important role in career guidance as a direct source of information or as a motivator to seek it.

Type of Student That Is Affected by Various Motivators

The responses to Question 39 were analyzed to see whether different types of students were differentially affected by the various motivators. Student types were discussed in the previous chapters.

There does seem to be some differentiation. In the following analysis, all the differences noted are statistically highly significant ($p < .01$).

The students most often looking for occupational information because of a class assignment were 12th grade white females in a nonacademic program not planning to go to college. In general, however, there was a tendency for more nonwhites and women to search for information as a result of a class assignment.

Those most frequently seeking information from visiting a school guidance counselor were 12th grade, high reading ability, college-bound white females. As a rule, guidance counselors were marked more by 12th graders than 10th/11th graders, more by high reading ability than low reading ability students, and slightly more by females than males.

Talks given at school were most frequently cited as a reason for seeking occupational information by 10th/11th grade high reading ability, college-bound nonwhite women. However, 12th graders overall were more likely to seek information as a result of these talks than were the younger students. Nonwhites also sought information more often than whites.

Films at school most often provided a basis for seeking occupational information to 10th/11th graders, low reading ability, nonwhite females not planning to go to college. Nonwhites more than whites tended to be influenced by films. Students in a nonacademic program marked films more frequently than did those in academic programs.

Those most frequently seeking information because of bulletin board displays were 10th/11th grade academic, high reading ability, college-bound nonwhites, both male and female. Overall, nonwhites were influenced by bulletin board displays more than whites, and there was a very slight tendency for females to use them more than males.

High reading ability, college-bound females more frequently sought information as a result of talking with their parents about occupations than did males, students of lower reading ability, or those in nonacademic programs.

Experience on a job was frequently cited as a reason for seeking occupational information for 12th grade, nonacademic, low reading ability students -- particularly white males.

Movies and TV were most frequently cited as reasons for seeking occupational information by 10th/11th grade high reading ability, college-bound nonwhite females. In general, the 10th/11th graders marked TV and movies more often than 12th graders, high reading ability college-bound more than low reading ability, noncollege-bound students, females more than males, and nonwhites more than whites.

There were no significant differences among student types talking with a friend. There was only a slight pattern suggesting that females, more than males, looked for occupational information after talking with a friend.

Purposes for Using the Resources (First Part of C3)

It is now convenient to make some inferences about the students' purposes in using the resources. Purpose is construed as embracing global questions that specific items of information help answer. The purpose of going to a resource is to search for information for answering questions like "What kind of program should I take next semester?" "What occupations might satisfy me?" "Should I go to college?"

The questionnaire did not ask specifically about purpose because such questions are ambiguous and made the instrument too long. However, some reasonable inferences can be made from various questionnaire items, and some items bear directly on the subject.

When the resource is a counselor, we see from Table 70 that the most common purpose is to talk about high school courses. This activity occurred more than once for about 82 percent of the visits. The corresponding percentages for talks about occupations or preparing for occupations were 51 for the former and 61 for the latter. The subjects of attendance and personal problems lagged far behind.

The students who most frequently spoke with counselors about high school courses were high reading ability, college-bound females in an academic program. Generally, however, males spoke with counselors about as much as females. Twelfth graders indicate a slightly higher frequency than 10/11th graders.

In choosing an occupation, 12th grade, high reading ability, college-bound white females talked with counselors more than any other type of student.

Generally, females talked with counselors more than males, high reading ability more than low reading ability students, and those in academic programs more than others. There was no overall pattern in racial background.

In preparing for an occupation, again the high reading ability, academic, college-bound students talked most frequently with counselors.

Nonwhites spoke with counselors about how or where to get a job significantly more frequently than did whites. There was a slight tendency for females to talk with them more frequently than males.

There were strong relationships between reading ability, high school program, college plans, and frequency of talking with a counselor about attendance and discipline problems. Those most often seeing a counselor for these reasons were low reading ability, nonacademic, noncollege-bound males. Overall, there was no clear pattern with respect to race or sex.

In general, those most often talking about personal problems with a counselor were nonacademic nonwhite females not planning to go to college. The relationship was less strong with race than with school program, plans, and sex.

Another purpose for seeking occupational information is apparent in Table 81. In their responses to Question 39, 65 percent of students in the three strata checked "Class assignment" as one of their reasons for looking for occupational information at least once. Only 32 percent had never done so. Evidently, one purpose of looking at occupational information is to complete an assignment imposed by a teacher.

Other purposes can only be guessed from the data in the tables. Table 79 suggests that the kind of specific information students are looking for concerns their immediate requirements rather than long-range plans. They want to know what the prerequisites for a job are more than they want to know the satisfactions they might expect from a job or even what the outlook is for job openings in the decade ahead. Wage and salary information -- another immediate concern -- is also important to them.

It would be dangerous to push these speculations too far.

Summary

The answer to the research question about the object of the search for occupational information is that students are most concerned with hard facts of immediate interest -- the prerequisites for entry, the earnings they may expect, what the job activities will be, the courses they should take in high school. They seem less concerned about the longer range aspects of work -- the satisfactions to be derived from a job and outlook years ahead. Trying to get a list of jobs they might like varies in importance. But all these classes of information are important to a substantial number of students using any resource.

Formal school personnel — guidance counselors, teachers, the librarian, are the most common sources of information about where to get career information materials or activities. Bulletin boards and school newspapers are not often cited as sources.

Parents and friends are the most commonly cited stimulants to look for occupational information. Formal school sources play an important part, too, and no motivator is so ineffective as to be negligible.

Different motivators affect different types of students. The relationships are complex and not easy to generalize. If what is true about talks with counselors is also true of other resources, the desire to work out high school course motivates high reading ability, college-bound 12th grade students more than others; choosing an occupation and preparing for an occupation motivate 12th grade high reading ability, college-bound females in academic programs; where to get a job motivates nonwhite females; and problems with discipline motivates low reading ability noncollege-bound males in nonacademic programs.

Table 79

Information Sought from Resources in All Strata

	Resource				
Information sought	Publications N = 3825	Computers N = 628	Microfiche N = 627	Sorting cards N = 658	Activities N = 4283
Description of job activities	47[a]	48	45	47	53
Prerequisites for a job	73	76	64	64	66
Outlook for job openings in 80's	38	45	37	36	37
Wage or salary in an occupation	55	58	53	50	48
Satisfactions from a job	31	31	28	28	34
A list of occupations you might like	47	45	36	42	40
Other information about occupations	11	12	11	9	10
No special information	5	4	10	3	6

[a] All figures are percent of the total in all strata that used the resource.

Table 80

How Students Learned That Various Resources Were Available -- All Strata

Informant	Resource Publications N = 4236	 Computers N = 1232	 Microfiche N = 1301	 Sorting cards N = 1077	 Activities N = 4882
Guidance counselor/ staff	48[a]	51	35	41	39
Career education specialist	12	19	16	19	14
Teacher in class	38	34	29	31	47
Teacher outside of class	7	5	4	4	10
School librarian	28	10	33	23	8
Poster on bulletin board	13	6	3	4	15
School newspaper	2	3	1	1	4
Friend at school	21	34	18	16	22
Group visit or orientation	11	9	9	7	14
Other	9	5	7	4	5
Don't Remember	5	6	3	4	6

[a] All figures are the percent of the total in all strata that used the resource.

Table 81

Reason for Seeking Occupational Information, All Strata

Motivator	Frequency[a] N = 4882			
	Never	Once	A few times	Many times
Class assignment	32	20	34	11
Talk with a counselor	36	19	32	10
Talk or lecture at school	39	21	31	6
A film at school	41	19	28	8
Bulletin board at school	55	15	20	6
Talk with parents or relatives	18	10	38	31
Experience on a job	48	14	24	11
TV show or movie outside school	50	11	27	8
Talk with a friend	24	14	40	20

[a] Percentage of all respondents in the three strata.

Table 82

Effectiveness of Various Motivators in Getting Students To Use Occupational Information

Effectiveness	Method						
	Counselor referrals	Teacher referrals	Bulletin displays	School paper notices	Class announcements	Group visits	Other methods
Very effective	47[a]	30	6	3	15	45	15
Somewhat effective	46	60	59	38	60	46	5
Not effective	1	6	27	21	14	2	<1
Not used	4	3	6	34	9	5	7
No response	2	2	2	3	2	1	73

[a] All figures are percentages, national estimate.

CHAPTER XI

RESEARCH QUESTION D1

Question d1 is "What resources do students use in career planning in addition to the resources of the school?" Both the school and student questionnaire probed this question. The school questionnaire asked whether an external resource center was available and, if so, what it contained in the way of the usual categories of resource. The student questionnaire asked, as we have already seen, what resources students actually used. We will take up these matters in that order.

Formal Resources in an External Center

Schools were asked in Question 51 whether an external resource center was available with substantial amounts of career information for the schools' students. An external resource center was defined as "a career resource center, a media lending library, a mobile unit, or other provider of occupational information."

Over 30 percent of the schools replied in the affirmative. The breakdown by stratum is shown below:

Stratum 1: 175 schools (32 percent)
Stratum 2: 226 schools (34 percent)
Stratum 3: 178 schools (26 percent)
National estimate: 31 percent

The centers were maintained under various auspices as shown in Table 83. Mostly these centers are maintained by some agency of the state (sum of the first three items). The school district maintains them in about a quarter of the instances in Stratum 1, far less in the other two strata.

The career resources in the center fall in the same categories as the resources available at the schools, as shown in Table 84. There is heavy emphasis on publications, audiovisual equipment, and speakers or career days. Although Stratum 2 contains proportionately more external centers than the other two strata, the centers contain fewer resources of all types except microfiche and sorting devices.

External Resources Used by Students

Numerous questions in the student instrument asked students to indicate the resources they used outside of school. Responses indicate that all were used by at least some students. (Frequency of use is discussed in the next chapter.) All should be counted as external resources.

Resources for motivation. Question 39 listed nine "resources" and asked students how often they had looked for occupational information because of each of the resources. (See Table 81.) The external "resources" that serve as motivators are:

A talk with parents or relatives
Experience on a job
A TV show or movie outside of school
A talk with a friend

Each of these resources served at least once as a motivator of 50 percent or more of the students in the sample pool.

Persons students have talked with. Question 41 asked students how frequently they had talked about occupations with ten classes of people, of which only two, guidance counselors and teachers, were connected with the school. Responses showed that all the people named had been consulted, or at least engaged in conversation, a significant number of times. (The frequencies will be discussed in the next chapter.) The external resources included on the list are:

Friends
Parents or relatives
People working in an occupation of interest
Former students at the school
State employment service counselors
Employers
College admissions officers
Armed forces recruiters

Places outside of school for getting occupational information. Question 42 asked students how frequently they had gone to each of seven places outside their school in order to get occupational information. Frequency of use varied, but it was never so small as to be negligible. (See the discussion in the next chapter.) These external repositories of occupational information are:

A public library
A state employment service office
A district or regional career center
A local college
A private employment agency
An armed forces recruiting office
An employer

Sources of information about occupations being considered. Finally, students were asked to name an occupation they were thinking about entering and to show where they had got information about it. A list of 37 potential sources of information was supplied for them to choose from. The same list was used for answers to questions about the source of five specific topics of information. (See Tables 72 - 78 in Chapter IX.) Although some resources were clearly favored over others, the students' responses indicated that information came from a multitude of sources, and that persons compiling lists would ignore any source at their peril.

The 18 external sources from the list of 37 are:

- People at school
  - Friends
  - Someone else at school

- People outside of school
  - Parents or other relatives
  - Friends outside of school
  - Someone in the line of work of interest
  - Employment service representative
  - Someone else outside of school

- Places to get information outside of school
  - Public library
  - District or regional career center
  - State employment office
  - Other places outside of school

- Activities outside of school
  - Work
  - Watching people at their work
  - Watching TV
  - Watching movies
  - Clubs (e.g., 4H, Future Farmers, etc.)
  - General reading or reading for fun
  - Other activities outside of school

Again, responses showed a wide range in the extent of usage with no response so small as to be negligible.

Summary

There is much overlap in these lists, the same items appearing over and over. If we eliminate the duplications, we may arrive at a master list that includes most of the commonly used external occupational resources. This list, which contains 23 items, follows:

People outside of school

1. Parents or other relatives
2. Friends outside of school
3. Someone in the line of work of interest
4. Employment service representative
5. Former students
6. Employers
7. College admissions officers
8. Armed forces recruiters
9. Someone else outside of school

Places to get information outside of school

10. Public library
11. District or regional career center
12. State employment office
13. A local college
14. A private employment agency
15. Armed forces recruiting office
16. Other places outside of school

Activities outside of school

17. Work
18. Watching people at their work
19. Watching TV
20. Watching movies
21. Clubs
22. General reading or reading for fun
23. Other activities outside of school

Item 11. the district or regional center, is likely to offer the same categories of resources as are commonly found in schools. These are:

Publications
Films and other audiovisual equipment
Microfiche
Computer terminals
Keysorts and needlesorts
Speakers or career days
Center-arranged exploratory work experience
Other

Table 83

Auspices Under Which External Resource Centers Are Maintained

Controlling Agency	Stratum 1 N = 540	Stratum 2 N = 668	Stratum 3 N = 686	National estimate
State education information center	15[a]	18	11	16
State employment service	15	12	8	11
Other state agency	6	6	3	5
County	9	6	8	7
School district	24	11	14	13
Local college	9	8	5	7
Other	4	5	5	5

[a] Percentages of schools in the stratum

Table 84

Types of Resources Available in the External Centers

Type of resource	Stratum 1 N = 175	 2 N = 226	 3 N = 178
Publications	95[a]	85	94
Films and other audiovisual	97	79	94
Microfiche	51	52	51
Computer terminals	34	22	44
Keysorts, needlesorts	11	23	24
Speakers, career days	81	61	78
Center-arranged exploratory experience work	49	33	53
Other	9	5	8

[a] Percentages of schools that indicated an external resource center was available.

CHAPTER XII

RESEARCH QUESTION D2

Question d2 is "How frequently do students use these additional resources as compared to their use of the schools' resources?" This question has for the most part been answered in chapters VIII, IX, and X, since the external resources could not be conveniently divorced from the school resources. This chapter will refer to some of these earlier tables.

External Resources as Motivators

Table 81 showed the frequency with which students had been inspired to seek occupational information for various reasons. Of the nine motivators listed, the two most powerful were external--a talk with parents or relatives and a talk with a friend.

The impact of a motivator may be estimated if we multiply the percentage of "Once" responses by one, the percentage of "A few times" by two, and the percentage of "Many times" by three, and then add the totals. Doing this produces the following results:

School motivators	
Class assignment	121
Talk with counselor	113
Talk with teacher	101
Film at school	99
Bulletin board	73
External motivators	
Talk with parents/relatives	179
Experience on a job	95
TV show or movie	89
Talk with a friend	154

The most powerful school motivator (in terms of frequency) was the compulsory class assignment, and it ranked far below parents or friends among the external motivators.

Frequency of Talks with Informal Resources

Students were asked in Question 41 to show the frequency with which they had talked with various people about occupations. Such people are informal sources of occupational information, and the information they give may be of dubious quality; Table 85 shows how the students' answers were distributed.

The people the students talk with most are parents or relatives. More than 90 percent of the students in Strata 2 and 3 have discussed occupations at least a few times with relatives, and in Stratum 1 it is 89 percent. Discussions with friends are also frequent. The sums of "A few times" and "Many times" were above the 50 percent mark in all strata for talking with employees in an occupation of interest. For talking with the two school resource persons--teachers and counselors--the sums were close to 50 percent. The other five informal resources were not used much, and state employment counselors were used least of all.

Table 85 shows clearly that this class of resource is the one used most frequently. The N's are large and the percentages responding "Many times" for friends and relatives are also large. If the same formula is applied to this table as to 81--"Once" is multiplied by one, "A few times" by two, and "Many times" by three--the contrast between the use of parents, friends and knowledgeable employees as external resources, and counselors and teachers as school resources becomes even more clear. The following table shows the results:

	Stratum 1	Stratum 2	Stratum 3
Friends	229	230	234
Parents	238	238	246
Employees	142	138	142
Counselors	129	128	129
Teachers	135	122	120

It is interesting to examine the relationships between these resources and student types as defined earlier. Those who talked most frequently with their friends were twelfth grade, high reading ability, academic, college-bound, white females. Each of those variables alone showed the same pattern, i.e., females more than males, academic students more than nonacademic, and so on. The relationship with race was not so pronounced as it was with the other variables.

Very similar patterns held for students who talk with parents or relatives, guidance counselors, and teachers. There was a definite tendency for more twelfth graders than tenth or eleventh graders to talk with counselors, and there was no relationship with race. There was also no relationship between race and the frequency with which they talked with teachers. But the pattern with grade level, reading ability, program, plans, and sex was the same.

Those students who talked most frequently with people working in an occupation of interest to them were twelfth grade nonacademic, low reading ability, white males. On the whole, however, there was no relationship with sex or with plans beyond high school. The strongest relationship was with grade level, the twelfth graders talking with someone in the occupation more frequently than the tenth/eleventh graders did.

Those who most often spoke with former students were tenth/eleventh grade, academic, college-bound, high reading ability, nonwhite females. On the whole, however, there was little if any pattern with race, high school program, or post high school plans. There was a strong tendency, on the average, for twelfth graders to talk with former students more frequently than tenth/eleventh graders did.

State employment service counselors were very infrequently consulted by any students. Those who did speak with them at all (fewer than 10 percent of the sample) were nearly always nonwhite.

Students who talked frequently with employers tended to be twelfth graders in a nonacademic program. There was no relationship with sex or race.

Those who most often talked with college admissions officers were, not surprisingly, twelfth grade, academic, college-bound, high reading ability students. There was some tendency for females, more than males, to talk with them, and for nonwhites more than whites.

Armed forces recruiters were consulted very rarely by white females, particularly those in tenth/eleventh grade. Those talking to them most were twelfth grade, nonacademic, white males not planning to go to college.

There are no surprises in these findings about student types.

Frequency of Access of External Resources

Question 42 asked students how often they had taken advantage of various external resources, such as a regional resource center. The analysis of responses is shown by stratum in Table 86.

The most frequently used external resource center is clearly the public library. It was the leader in all strata, especially Stratum 1. A regional career resource center was used hardly at all--17 percent of the students in Stratum 1, 9 percent in Stratum 2, and 14 percent in Stratum 3.

The data do not lend themselves to comparisons of use of these resources with those at the school. Table 86 concerns places or people where specific types of resources exist. The data on student use of resources at school concerns the types. A rough comparison is possible, however. Students were asked how often they had read reference books like the OOH at their schools. The public library and regional resource center very probably have a copy of the OOH. The percentages of "Never" responses for the three strata were 21, 22, and 23. These compare with the corresponding percentages of "Never" for public libraries of 35, 43, and 42, and for regional resource centers of 79, 88, and 84. It seems probable that students use the facilities of their school for formal resources, such as publications, computers, microfiche, and so on.

Again, it is interesting to see whether the use of the resources listed in Table 86 varies by student type.

The public library was used most often by nonwhites and by females, and there was a slight tendency for those planning to go to college to use it more than others.

The few students (less than 10 percent) who had gone to a state employment service officer were primarily nonwhites. Likewise, the few who went to a career center were also nonwhite. No other strong patterns were evident for this resource.

Local colleges were visited infrequently, but those who did go to them were primarily high reading ability, college-bound students, generally twelfth graders.

Private employment agencies were seldom visited. No significant differences between student types using them were observed.

Armed forces recruiting officers were also seldom visited; those who did visit them were primarily males.

Employers were used most frequently as a source of occupational information by nonacademic students planning not to go to college.

Students' Feelings about the Adequacy of Their School Resources

It is evident that students rely heavily, if somewhat warily, on some external resources, especially parents or relatives and friends. The data cited in Table 73 show that students do not cite parents or relatives as the actual source of a particular topic of information so often as one might expect. Friends were not even among the five resources named most frequently as actual sources. Of the top five, three were school resources--teachers, counselors, and publications. Someone in the line of work made up the fifth member of the top five. No source was named by more than 16 percent of the students. If subsets of students were made, e.g., a subset of students who had interacted with a computer, another of those who had used a microfiche, and so on, it is quite possible that other school resources would have been among the top five for students in the subsets. These comparisons were not made, however, because the numbers of students who were aware of the resources' availability were small, and the numbers who had used them were much smaller than that.

But students were asked (Question 43) whether they thought that their school resources were sufficient to supply all the information they wanted. Table 87 shows the pattern of responses.

More students think the resources are insufficient than think they are adequate--36 percent versus 32 percent. Over a quarter of the students (28 percent) were not sure. The questionnaire could not explore the reasons for the students' dissatisfaction or the kind of improvements the students would recommend.

Summary

External resources play a large part in students' encounters with career information. Parents and friends are the most powerful motivators of students' search for information, and students talk with them about occupations far more frequently than they talk with anyone else. Parents and friends may not, however, play such a prominent part in supplying specific topics of information.

Students use the public library as a resource with considerable frequency, though probably not as much as they use comparable resources at school.

More students find their schools' resources insufficient than find them sufficient.

Students seem to trust parents and friends more than counselors and teachers or other school resources for help with occupational information activities. Students are unlikely to get from such external resources a context that will help them process the information they find. An essential part of information-seeking is that there exist a framework to give the information meaning. Guidance is one such framework, and it is more likely to be found in the school than in the informal resources that students seem actually to favor. To the extent that external resources must, by their very nature, fail to provide a suitable context for processing occupational information, the students' heavy dependence on them is cause for concern.

Table 85

Frequency with Which Students Have Talked About Occupations with Various Informal Resources

Source	Stratum											
	1 N = 1598				2 N = 1555				3 N = 1729			
	Never	Once	A Few Times	Many Times	Never	Once	A Few Times	Many Times	Never	Once	A Few Times	Many Times
Friends	5[a]	6	38	49	4	4	44	46	4	5	41	49
Parents or relatives	4	4	33	56	4	3	38	53	3	4	34	58
Counselors	29	19	37	12	29	19	41	9	29	19	40	10
Teachers	25	18	45	9	31	18	43	6	33	19	40	7
Employees in an occ. of interest	26	15	41	15	27	17	41	13	27	17	40	15
Former students	58	16	19	5	58	14	23	3	64	12	18	3
State employment counselors	84	6	6	1	89	4	3	1	92	3	2	1
Employers	49	14	28	6	53	14	27	4	55	13	24	6
College admissions officers	74	9	11	3	79	8	9	1	80	6	10	2
Armed forces recruiters	73	10	10	4	72	11	11	4	81	9	6	2

[a] All figures are percentages of responding students in the stratum.

Table 86

Frequency of Student Use of External Resources

	Stratum											
	1 N = 1598				2 N = 1555				3 N = 1729			
Source	Never	Once	A Few Times	Many Times	Never	Once	A Few Times	Many Times	Never	Once	A Few Times	Many Times
Public library	35[a]	11	31	20	43	13	28	14	42	12	27	17
State employment office	77	10	8	2	84	8	5	1	87	6	4	1
Regional career center	79	8	7	2	88	5	3	1	84	6	6	2
Local college	65	13	15	4	70	13	13	2	73	11	12	2
Private employment agency	84	6	5	1	90	4	3	1	89	4	4	0
Armed forces recruiter	83	7	5	2	82	8	6	2	86	6	4	2
Employer	49	17	24	8	53	17	23	5	56	13	23	7

[a] All figures are percentages of responding students in the stratum.
Figures do not add to 100 because "No responses" are not included in the table.

Table 87

Students' Perception of the Sufficiency of Their School Resources to Supply All Desired Information, All Strata

Opinion	Response[a]
School resources sufficient	32
School resources insufficient	36
Not sure	28
Don't know	<1
No response	3

[a] Percent of all responding students in all strata.

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CHAPTER XIII

RESEARCH QUESTION D3

Question d3 is "What is the quality of these additional resources as compared to the quality of the school's resources?"

Where the additional resources reside at a district, county or regional resource center, they are generally the same categories of resources as exist in the schools. (See Table 84.) There will be differences in human resources (fewer teachers at the external center, for instance); and in resources of the K category there will be fewer school-arranged experiences at the external site. But in the main the informational materials will be alike.

Therefore one aspect of the question about the quality of external resources is answered: they are about the same quality as the corresponding resources at the school. Often they are better in the sense that a regional center with state support may be able to offer a wider variety of resources than a small school with mostly local support. When operated under the direction of professional staff, they may also be better because materials can be kept up to date, reviewed periodically, and catalogued for easy cross-referral. The regional centers we have looked at for this study have been impressive.

One aspect of quality is the degree to which resources are used. Measured by this yardstick, the external centers do not look so good. Only a little over 30 percent of the schools in the national sample observed that such centers provided substantial amounts of occupational information. Moreover, 84 percent of the students in the student sample indicated that they had never used a regional resource center. Only 6 percent of students responding to Question 48 said they got information about a specific occupation from such a center. Fewer than one percent of the students had obtained information from a regional center about five specific features of a selected occupation: education and training, wages and salary, job security, opportunities to help others and activities on the job. Thus, from the perspective of usage, the quality of the centers is diminished. We can only speculate about why they are not used more. Perhaps they are regarded as unattractive or hard to get to.

It is possible to say something about the quality of external resources whose content can be inspected, such as materials at a regional center or public library. What is to be said about the quality of resources whose content is private? A few comments may be made about specific resources of this type, with some additional comments about them as a class.

The 23 specific external resources were listed in Chapter XI (Question d1). Of these numbers 10 and 11 are the public library and the regional center, which were discussed immediately above. Numbers 4 and 12 (employment service representative and state employment office) and 14 (a private employment agency), none of them used much, are likely to yield good information about immediate job availability for a limited number and range of jobs. Users may also receive some "counseling," but emphasis is on employment not on the broader concerns that are associated with the words career or guidance.

Numbers 7 and 13 (college admissions officers and a local college) may provide useful information for college-bound students about educational opportunity and availability of financial aid. College admissions officers are likely to be poor sources of occupational information; that is not their specialty. As a recruiting device, some local colleges offer guidance to students in feeder high schools and some have placed computer terminals in high schools or have invited high school students to come to the college. In these cases the quality of occupational information may be relatively good.

Numbers 8 and 15 (armed forces recruiters and armed forces recruiting offices) are doubtful sources for information about civilian occupations and careers. (See Hoppock, 1976, p. 44.) The business of these sources is to recruit for the armed services. Their recruiting practices have been severely criticized for misleading students into believing that military training is more readily transferable to civilian work than is actually the case. Number 6, employers, are also of mixed utility. They are obviously good sources for information about earnings, hours, duties, work environment, physical demands, fringe benefits, entry requirements and some other aspects of a narrow range of occupations. They are likely to be poor sources of information about other aspects of the occupation, and (if one can judge by the literature published and distributed free to the schools by some industries) they are likely to present a much rosier picture of employment with their companies than the facts warrant.

Of the activities outside school, items 19, 20, and 22 on the list in Chapter XI are likely to be actively misleading. Most TV shows, movies, and novels distort the occupations they deal with for dramatic effect. Police officers, for example, tend to be unbelievably heroic or vicious depending on the theme of the entertainment. Even documentaries tend to distort because they have to focus on a small segment of the whole canvas. Fortunately, few students admit to getting specific information from these sources. The worst cases were about two percent for information about job activities from TV; for movies, it was a little more than one half of one percent.

Watching people at their work (number 18) has great utility in a narrow area of occupational information, the work environment -- tasks and duties, special tools and equipment, working conditions and physical demands. (See Hoppock, 1976.) Additional information can be inferred -- about aptitudes and educational/ training requirements. But the range of information is limited. The same problem exists for work itself (Item 17). Much more is learned about the occupation, and in a very intensive way, but despite the immediacy of the information to be gained from work, there are whole areas not covered, particularly long-range outlook, routes to advancement, personal satisfactions, school programs, and sources of further information. We noted in Table 82, Chapter X, that work ranked just below counselor referrals as an effective motivator.

Of the personal sources not already discussed, former students (Item 5) are an attractive and useful resource not much used. (See Hoppock, 1976, p. 190.) As we saw in Table 48, only 57 percent of the schools have a staff member responsible for making data available on jobs held by former students; job descriptions prepared by former students were available in only three percent of the schools. Obviously, the quality of information from this resource will be quite limited in range, but is expected to have much impact.

This leaves items 1, 2, and 3 -- parents or relatives, friends, and someone in the line of work that a particular student is interested in. We saw in Table 85 that these three informal resources are the most frequently named as persons whom students have talked with about occupations. Parents or relatives and someone in the line of work are also among the most frequently named sources of five topics of specific information. (See Table 73.) Of these, someone in the line of work is in the best position to offer accurate information of limited scope. Like work itself as a resource, the employee will be better informed about some things than about others; he or she cannot be informed, for example, about all the subjects that were examined to determine the content of information resources for Tables 10, 11, 12, 13, and 15 of this study.

The quality of parents, relatives, or friends as sources of occupational information seems more suspect. Of course these people may be "someone in the line of work," in which case the quality of their knowledge might be good but, as we have seen, limited. But if we assume they are not someone in the line of work, we have to ask how accurate and broad their information can be. The danger to the student is twofold: the parents or friends may be misinformed about the occupations they "know" about, and the number of occupations they are aware of may be very restricted. To the extent that these sources motivate students to look for occupational information elsewhere, their quality may be good; to the extent that they supply the information itself, the quality seems doubtful.

These informal resources are, however, probably the only source of occupational information for some students. Although the schools cannot control the sources, they can do some things to offset possible distortions with accurate information from the marketplace. The table below isolates some of the career information resources named in Question 11 of the school instrument that serve as a vehicle for communication between the immediate work environment and students. They can all be monitored or arranged by the schools.

Resource	Percent of Schools (National estimate) Having Resources
B13 Write-ups of jobs held by former students	3
E2 School prepared lists of employers, speakers, contact persons	37
K3 Exploratory work experience	58
K4 Career days, speakers, assemblies	75
K7 Job site tours or visits	59
K8 Job shadowing (in-depth observation of worker)	16
K9 Conferences with community representatives (employed alumni, workers, employers)	40

Greater investment in these kinds of resources seems justified.

We may generalize about these informal external resources by distinguishing between intensive and extensive information. The informal resources all tend to provide intensive information. They shine a bright light into a small area and illuminate it in a way that books and sorting cards cannot match. As Hoppock (1976) has observed, "No amount of reading and talking about jobs in a chemical laboratory will leave the lasting impression of one whiff of hydrogen sulfide" (p. 183). What informal resources lack is extensive information. They are limited in the number of occupations they can inform about, and they are limited in the number of aspects of those occupations they can cover. Their quality is consequently reduced as judged by the requirements for career decision making.

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CHAPTER XIV

IMPLICATIONS

This study is the first of two, the second being a comparison of the effectiveness of six different types of delivery systems in twelve of the schools that participated in the first survey. The two studies are obviously linked, Study 1 being largely descriptive and Study 2 largely evaluative. Therefore, lacking the outcomes of Study 2, we do not intend in this chapter to speculate deeply about the implications of the findings set forth in the previous chapters. We hope that some of the questions left unanswered here will be answered from the analysis of Study 2.

Availability of Resources: School Questionnaire

Positive aspects. Confining ourselves for the moment to the school questionnaire, we get an impression that looks generally encouraging. The small number of "Other" responses on Question 11 makes it appear that the resources specifically named in that item constitute almost the complete universe of career information resources offered to students by the schools. There is a wide variety of offerings--13 categories, 130 separate items. They range from six categories of publications to computer systems, to activities, to contact with educational professionals.

Of course, no school has everything, and many schools provide very little. Only about a quarter of the schools in the sample have a computer system of any sort; only 18 percent use simulations. Yet, if we extract the ten most common resources from the list in Table 9 (Chapter II) and look at the percentage of schools that have them, we find that the select group includes items from 5 of the 13 different categories and that the item ranked tenth (job-site tours) is available in 59 percent of the schools. The most common resource of all, the *Occupational Outlook Handbook*, is found (often in multiple copies) in 92 percent of the schools. The top ten with the percentage of schools nationwide that use them (i.e., the national estimate) are shown below.

Occupational Outlook Handbook	92
Conferences with counselors	83
Dictionary of Occupational Titles	83
Career days, speakers, etc.	75
Occupational handbooks for the military	75
Vocational school directories	74
Externally produced AV materials	71
College directories arranged by occupation	70
Occupational information units in subject matter courses	62
Job site tours	59

Management of the resources is generally in the hands of professionals--the director of guidance and staff or the coordinator of career education and staff. Principals play an important role in planning expenditures, but a much smaller role in other management activities. Teachers and librarians may take responsibility for some management functions for which they seem qualified--teachers for supervising work-experience programs, librarians for maintaining indices of available resources and for reviewing materials for obsolescence. Over 60 percent of the schools signify that they have a staff member who serves as a director or head of career guidance, and fewer than six percent of the schools nationwide said that they did not have a full-time equivalent guidance counselor employed at the school.

Responses to the school questionnaire also suggest that help from professionals is available to students who seek it. No school indicated that this task was not performed. Although counselors spend less than a quarter of their time with students discussing occupational choice and career planning, roughly two-thirds of the counselors indicate that "a great deal" of this block of time is spent in directing students to general and specific occupational information or in answering students' questions about occupational information; that is, they were serving as information resources. In addition, more than half the counselors said that they spent "a great deal" of this career counseling time in guidance--interpreting occupational information and assisting students with career decisions.

If quality is construed in terms of coverage, the checklists in Tables 10, 11, 12, and 15 suggest that students could, if they chose, satisfy their curiosity about very many aspects of occupations by consulting an appropriate publication, computer system, or VIEW microfiche. Additional information would be forthcoming from the categories of resources whose content cannot be summarized in checklists--experiential activities, contacts with staff or employed persons, needlesorts, simulations, AV materials. And of course still more information, much of it of dubious quality, might come from informal sources--friends, parents, and the chance encounters of life. When one remembers that 92 percent of the schools have at least the Occupational Outlook Handbook and when one looks (Table 10) at the coverage of that publication, one might conclude that American high school students have a fair shake at locating occupational information if they want it. And when one compares the checklists shown in Tables 10, 11, 12, and 15 with various standards and guidelines promulgated by the National Vocational Guidance Association, the National Occupational Information Coordinating Committee, and the Association of Computer-Based Systems for Career Information, one might be likely to conclude that much of the available information must be of high quality.

Negative aspects. There are, of course, some disturbing findings from the school questionnaire. If 92 percent of the schools have the Occupational Outlook Handbook, there are eight percent that do not have it.

That translates into about 1,400 schools throughout the country whose students do not have access to this most common resource (although they may have access to something else). There are other findings that cause misgivings. Almost six percent of the schools (over a thousand schools across the nation) do not have a full-time equivalent guidance counselor and 35 percent have no one serving as a director of guidance. Over 40 percent of the schools have no formal arrangement whereby current students can get feedback from former students. About 30 percent of the schools do not review their career information materials for obsolescence as often as once a year. Many resources are used only a fraction of the time they are available. The schools (or rather, the persons filling out the questionnaires for the schools) occasionally recommended the Occupational Outlook Handbook for functions it was not designed to perform, either because they were unaware of the volume's limitations or because their schools lacked a more appropriate resource. And for many specific needs they could not think of any resource.

Quality of Resources

A deeper study of the quality of the resources goes beyond the checklist approach and asks how well the information reflects the actual conditions of the occupation. The results of the closer look are disquieting. Some portions of occupational information, particularly the part linking personal attributes with those of the occupation, appear "soft" and beset with contradictions. Without repeating the observations made in Chapter III (especially the sections titled "Structure of Occupational Information" and "Procedures"), we may note here that the Dictionary of Occupational Titles and its companion piece, the Guide to Occupational Exploration, are inconsistent or confused or ill-conceived or overly simplistic in their treatment of the levels of skill for Data, People, Things, and their treatment of interests, aptitudes, and temperaments. Unfortunately, these weaknesses appear in the DOT Data Display Tape, which is the source of information for numerous other career resources. They are picked up by some computer-based guidance systems, where their presence is particularly unfortunate because these systems are designed to provide the very linkages this class of information is concerned with. Consequently, the list of occupations that students retrieve from structured access to these systems is likely to be far more arbitrary than the students realize. Occupations that in fact may meet the students' specifications with respect to interests and abilities, say, may not make the list--not because of any inherent deficiency in the occupations but because of the chaotic way these linkages are treated.

Use of Resources: Student Questionnaire

The implications of these findings cannot be viewed in isolation. The school questionnaire has shown what resources are available at school to the majority of students if they want occupational information and know what information to seek. Now let us look at the student questionnaire to see how students use these resources, whether they use other resources not associated with the schools, and which resources they depend on for career information.

There is considerable evidence that the resources students use most (but by no means exclusively) are not those provided by the school. For convenience, we may label the school resources formal. These are the resources listed in Question 11 of the school questionnaire consisting of 13 categories and 130 different items plus uncounted "Others." They are formal in the sense they were compiled or arranged in accordance with some established design, methods, models, or forms and are made available to students through regular arrangements by schools. The checklists in Tables 10, 11, 12, and 15 show the formal nature of three types of these resources. All other resources such as unplanned encounters with parents and friends and TV shows, are informal. What we are saying is that students seem to use informal resources more than formal ones.

There is some evidence for this assertion. Parents or relatives and friends ranked one and two among the causes of students' looking for occupational information. The formal resources, designed with that activity in mind, ranked considerably lower. They were the compulsory classroom assignment, counselors, talks or lectures, and films. These formal resources were followed in rank by more informal ones--TV shows and movies.

Parents or relatives, friends, and employed workers ranked one, two, and three as persons students had talked with about occupations. Counselors and teachers--formal resources by our definition--lagged far behind.

Fewer than one-third of the students thought the formal resources at their schools were sufficient in the sense that the resources supplied all the information the students desired; 36 percent called the formal resources insufficient, and another 28 percent were not sure.

When it comes to specific pieces of information--that is, information that answers a specific question about an occupation--we find that informal resources are used just as often as the formal ones. Parents or relatives and someone in the proposed line of work were named as frequently as formal publications, and considerably more frequently than counselors and teachers, as the source of information about the education and training requirements for entry into an occupation the student was considering, information about its earnings, information about its job security, information about the opportunity it provided to help others, and information about the activities the work entailed. Work and watching people at work (informal resources) were also named as sources of information. No single resource, formal or informal, was named by more than 17 percent of the students.

Disregard for formal resources also appears in the tallies of student usage. Various kinds of publications fare best in this respect, probably because of the great variety of publications that exist and the ubiquity of the Occupational Outlook Handbook. Although reference books have been used at least once by almost 80 percent of the students, fewer than half the students have used them more than once. Magazines are used a little less frequently than reference books, pamphlets and briefs less than that, and reports from former students (not widely available) hardly at all. (See Table 65, Chapter VIII.) Half the students who are aware that their school has a computer terminal have never used it (Table 66), and the same figures apply to microfiche (e.g., VIEW) (Table 68). Sorting cards or needlesorts, found in about 40 percent of the schools, have never been used by about 35 percent of the students who are aware of them, and have been used more than once by only another 35 percent (Table 69). Although more than 60 percent of the students have been exposed to a film or other audiovisual medium for career information, fewer than 50 percent of them have ever participated in any of the other eight experiential activities listed in Table 71, including career days (offered by over 75 percent of the schools) and courses in career planning (offered by over 40 percent).

The ratio of use to time available is also discouraging. We cannot obtain the ratio for publications because of the enormous variety of these resources, nor for experiential activities because of the obstacles to determining availability. But the ratio can be calculated for computers, AV materials, microfiche, and needlesorts (Tables 58 and 61). The computer terminals are used less than half the time they are available, and all of the others less than a quarter of the time.

Figures on usage may be interpreted in more than one way. For example, if a school has many different kinds of resources, the total usage might be quite high but the use of any single resource quite low; also, the percentage of idle time would appear high, creating the false impression that the resources were not being used much. A certain amount of redundancy is desirable so that students do not have to wait. But taken in conjunction with the students' own reports of the role of informal resources in their career thinking, the usage figures seem to confirm the view that students do not take full advantage of the formal resources. Although the immediacy of information from an informal resource may lend it vividness and intensity, young persons in high school need extensive information as well so that they can make choices, set goals, and formulate plans.

Providing a Context for Career Information

Why don't students get more of their information from formal resources? Perhaps Study 2 will turn up some answers. Pending the completion of that undertaking, we are left with whatever surmises we can derive from the school and student questionnaires. We suggest tentatively that one of the problems students have when they encounter the mountains of formal resources is the lack of a usable context in which to place the information. The information they need is presumably there--somewhere in all those volumes and magazines and films and computer disks and people's heads. But how are the students to know what they need? And, once they do know, how are they to dig it out? They are in the position of writers who know that the dictionary contains the exact word for their thought but do not know how to spell it or pronounce it. It is not practical to go through the dictionary column by column from *a* to *zymurgy*, or through the *Occupational Outlook Handbook* page by page from *Patternmakers* to *The Armed Forces*. Actually the wordless writer is better off than the students, for the writer is at least aware of a need that can be supplied from a specific resource; students "often don't know what information they need, don't have what information they want, or can't use what information they have" (Katz, 1963, p. 25). In short, it seems to us that students need a context of guidance if they are to be induced to grapple with the large store of information that is available to them.

This is not the place to go into theories of guidance or to advocate one theory over another. We wish to use the term guidance loosely to mean a medium of assistance. Guidance helps individual students determine what questions to ask, helps them decide what information will answer the questions and where the information resides, helps them structure the information and interpret it, and, at its best, helps them arrive at a strategy for making decisions based on information.

There is some indication from the study that students do not find this context of guidance in their formal resources. When students were asked what they were seeking when they used a resource, over 70 percent of them said prerequisites for entry into the job, and over 50 percent said wages and salaries. This response pattern was independent of the resource the students were using. Last place on the list of purposes was invariably occupied by information about the satisfactions from the job. One would expect that a context of guidance might produce a different pattern with more concern about long-range needs, such as satisfactions, and less concern with short-term needs, such as earnings and educational prerequisites. We may recall, too, that 28 percent of the students who assessed the adequacy of their school resources said they were not sure. So much uncertainty suggests that the students did not know what information to look for and therefore were unable to assess its quality. We remember also that whoever filled out the school questionnaire (usually a counselor) was often unable to think of a suitable resource to meet needs clearly associated with guidance--for information about opportunities to help others or job security or accessibility of occupations to the handicapped or lists of occupations meeting multiple specifications. The schools, moreover, did not often name courses in career planning, occupational units in subject classes, or career days as resources for arousing students' interest in exploring occupational information, nor were counselors often suggested as a resource for any specific purpose, even though over 80 percent of the schools regard conferences with counselors as a weapon in their arsenal. Finally, we note (Table 70) that nearly half the students in the sample had never talked with a counselor about occupations; nearly 40 percent had never talked about preparing for an occupation.

These findings are not conclusive, but a strong argument could be based on them that neither the schools nor the formal resources provide the context of guidance that would help students identify, locate, and process the occupational information they need. Where, then, is such a context to be found?

Revising Resources As a Partial Solution

The implications of this statement are twofold: (1) Can the schools be adapted to provide the needed context? (2) Can the resources themselves be designed to accomplish this end?

Pending the outcome of Study 2, we do not wish to dig deeply into either alternative. It is safe to point out, however, that reorganizing the career resources is much easier than reorganizing the schools. For over a decade, ever since U.S. Commissioner of Education Sidney P. Marland proposed that all education be thought of as preparation for a career, the federal government has been plowing money into the schools to foster this idea. And not without effect, but obviously the process of change in the schools is slow. Working directly on the resources seems likely to produce quicker results.

Correcting deficiencies. Some of the prescriptions for change can be inferred from Chapter III. Clearly, the deficiencies in information should be corrected in the Dictionary of Occupational Titles, the Occupational Outlook Handbook, and the Guide to Occupational Exploration. These are seminal volumes whose errors breed true or even multiply in their numerous offspring. But, as with the schools, changing these resources is a slow process: there was, for example, a span of 12 years between the third and fourth editions of the Dictionary of Occupational Titles.

Providing linkages. Another improvement in resources would be provision of linkages between occupational attributes and individual attributes. It is hard to tell the extent to which these linkages can be successfully established when the occupational information is stored in a necessarily linear medium, such as a publication. Needlesorts may serve the purpose, although they have the disadvantage of making information retrieval an awkward two-step process.

Improving computer-based systems. It seems to us that computer-based delivery systems offer a more feasible solution to the problem of providing a context for information. If, as we suspect, the required context consists in organizing occupational information to meet the wildly various needs of myriad different individuals, the computer is very nearly the only resource capable of doing it. Publications, AV materials, and microfiche are hampered by their linearity. Experiential activities, although vivid, are haphazard and limited in scope. Human beings cannot be expected to remember and process information in the amounts required; they have better things to do. But the raison d'être of computers is to structure and restructure information to serve multifarious needs.

But there are problems with many of the computer systems examined in this study despite their conformity to thoughtful guidelines like those of the Association of Computer-Based Systems for Career Information (ACSCI) and the National Occupational Information Coordinating Committee (NOICC). The guidelines are mainly concerned that specific classes of information be included in the systems. They have tacitly assumed that information taken from the Dictionary of Occupational Titles would meet their standards for quality for information that was not volatile. This was a reasonable assumption considering the reputation enjoyed by that volume and the painstaking care that goes into its preparation. But, as we saw in Chapter III, some of the information is much "softer" than the rest, and the softness may become mush when the information is picked up and used thoughtlessly in other resources. Perhaps hard information about some aspects of occupations is an impossible dream. For instance, the cognitive abilities required for successful performance in most occupations may be so broad as to defy differential predictions in any useful way. Groups that establish guidelines such as ACSCI and NOICC, could insist that information about ability requirements be clearly identified as tentative and judgmental, unless its validity has been established by solid research. It should certainly not be treated as dogmatically as it is now.

The guidelines could also do a service by bringing uniformity to the treatment of interests, temperaments, and abilities. These constructs are used inconsistently by various systems and sometimes within a single system, almost as if they were interchangeable. Interests are especially slippery because they are treated as present or absent rather than rated on a continuous scale, and because occupations whose activities straddle several different fields of interest are classified in only one of them.

Guidelines could also suggest that designers of systems play fair with their users by making explicit the assumptions that underlie the system's structure. One example of failure to do this has already been discussed--the treatment of soft information in the same way as hard, as if decisions could be based on one with just as much confidence as on the other. Data on earnings may be entered into a system at different times for different occupations, leaving the user with the impression that all the information is comparable. It should be clearly dated or inflation factors should be applied to make all information of this class contemporaneous. Projections of outlook, such as those found in the Occupational Outlook Handbook, also require clarification, shift in emphasis from growth to total demand, and more attention to projections of supply. Perhaps the most serious deficiency is the failure of many systems to distinguish between aptitudes, interests, and values, even though research has established that they occupy distinct domains. When interests are used to retrieve occupations tacitly regarded as desirable, interests are at that moment being treated as if they were a universal value. The undeclared assumption is that the retrieved occupations have more worth--i.e., more value--than ones not retrieved. But this assumption is unwarranted if the user is looking for high income from an occupation, or prestige, or several other satisfactions alone or in combinations. The same observation is true of several other retrieval techniques--say, matching worker traits with characteristics of the user or requirements with abilities. The unstated assumption that the retrieved occupations are more desirable may be true much of the time, but it cannot be true for all users. The assumption should be made clear.

The guidelines could make computer systems more attractive and useful if they established minimum levels of interactivity. This statement applies to computer-based information systems as well as guidance systems. A system that prints or displays an asterisk or question mark and then sits silently waiting for a response is hard for naive students to use. What on earth does the computer want? The answer is in a little booklet beside the terminal, if the previous user has not carried the booklet away with him. What the computer wants is input in the form of a code. The code is logical and contains mnemonics, but there are many different symbols in it. It is like unfamiliar words that must be looked up before reading can proceed. Students cannot go from file to file without interrupting the flow of what they are doing. If they used the system every day, they would soon master the vocabulary of the code and with it the system. But, as we saw in Chapter VIII, only one system was used as much as 50 percent of the time by students unassisted. The person assisting the student was usually a counselor (Table 56). In a large number of instances, students never personally used the system at all; they passed their requests on to someone else, who then sat at the terminal, got the desired information, and took it back to the student. Surely such a cumbersome arrangement, which is essentially a one-on-one counseling situation that ties up the counselor as well as the terminal, is a deplorable use of the computer. It makes the computer a barrier instead of facilitator. The virtue of computers is the immediacy of their response and their ability to structure information uniquely for each user. This virtue is much diminished if the student, like a visitor in a foreign land whose language is unknown, must look up every phrase in the codebook or appeal for help from another person--and an authority figure at that.

Finally, if computers are ever to bring students into closer contact with formal resources, there must be more terminals in the schools. Of the schools that had terminals at all, the overwhelming majority had only one. Given the problems of scheduling classes, this is not enough even in a small school and even if the additional terminals are idle part of the time. Difficulty of access must surely inhibit use. We saw that only half the students who were aware that a terminal was at the school actually used it even once. We do not know why this situation exists, but part of the explanation must be difficulty of access to the single terminal.

The lack of terminals cannot be remedied by revising guidelines. But the steady decline in the cost of hardware and the advent of mass storage for microcomputers offer hope of improving the situation.

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ABBREVIATIONS AND ACRONYMS USED IN THIS REPORT

ACSCI	Association of Computer-Based Systems for Career Information
AEL	Appalachia Educational Laboratory
AV	Audiovisual
CCIDS	Computerized career information delivery system
CDM	Career decision-making
CEIS	Committee on Evaluation and Information Service
CETA	Comprehensive Employment and Training Act
CHOICES	Computerized Heuristic Occupational Information and Career Exploration System
CIS	(Oregon-based) Career Information System (a computerized system)
CISI	Career Information System of Iowa (a computerized system)
COCIS	Colorado Career Information System (a computerized system)
COIN	Coordinated Occupational Information Network (a computerized system)
CVIS	Computerized Vocational Information System
DOT	Dictionary of Occupational Titles
ETS	Educational Testing Service
F	Finger dexterity as measured by GATB
FEDAC	Federal Education Data Acquisition Council
FTE	Full time equivalent
G	Intelligence or general learning ability as measured by GATB
GATB	General Aptitude Test Battery
GIS	Guidance Information System (a computerized system)
GOE	Guide for Occupational Exploration
GS	Government (salary) scale
K	Motor coordination as measured by GATB
KPR	Kuder Preference Record
M	Manual dexterity as measured by GATB
MCIS	Minnesota Career Information System (a computerized system)
MDR	Market Data Retrieval
MMPI	Minnesota Multiphasic Personality Inventory
MOIS	Massachusetts or Michigan Occupational Information System (computerized systems)
N	Numerical ability as measured by GATB

NCIS	Nebraska Career Information System (a computerized system)
NIE	National Institute of Education
NOICC	National Occupational Information Coordinating Committee
NVGA	National Vocational Guidance Association
OAP	Occupational Aptitude Pattern
OCIS	Ohio Career Information System (a computerized system)
OOH	Occupational Outlook Handbook
OOQ	Occupational Outlook Quarterly
OVIS	Ohio Vocational Interest Survey
P	Form perception as measured by GATB
Q	Clerical perception as measured by GATB
S	Spatial ability as measured by GATB
SDS	Self-Directed Search
SIGI	System of Interactive Guidance and Information (a computerized system)
SMSA	Standard metropolitan statistical area
SOC	Standard Occupational Classification
SOICC	State Occupational Information Coordinating Committee
SRA	Science Research Associates
SVIB	Strong Vocational Interest Blank
USTES	United States Training and Employment Service
RFP	Request for a proposal
V	Verbal ability as measured by GATB
VIEW	Vocational or Vital Information for Education and Work (a system using microforms)
WCIS	Wisconsin Career Information System (a computerized system)
WOIS	Washington Occupational Information System (a computerized system)

APPENDICES

NIE 200A

FORM APPROVED
FEDAC NO. S122
APP. EXP. 06/80

APPENDIX A

Career Information Systems in Secondary Schools

A National Survey of Occupational Information Resources

Agency affiliation:
National Institute of Education
National Occupational Information
Coordinating Committee
Educational Testing Service
The College Board
Mathematica Policy Research

This report is authorized by legislation (20 USC 1221e). While you are not required to respond, your cooperation is needed to make the results of the survey comprehensive, accurate and timely.

The National Institute of Education (NIE), using funds transferred from the National Occupational Information Coordinating Committee (NOICC), has contracted with Educational Testing Service, the College Board, and Mathematica Policy Research to study occupational information resources for grades ten, eleven, and twelve in a sample of our nation's secondary schools. NOICC will use the results of the study in recommending legislation to the United States Congress and in other actions to improve career information and programs for secondary school students. Your participation is crucial to ensure that this voluntary study provides an accurate description of the occupational information resources available to youth. Your answers will be strictly confidential.

Part A (printed on blue paper) is quite brief and contains questions about the general characteristics of the school. Part B contains specific questions about occupational information and is intended for the director of career guidance or other member of the school staff who is most knowledgeable about the occupational information resources of the school. The principal may answer Part A or refer it to the staff member as he or she prefers.

PART

A General Information

To help us interpret responses to the remainder of the questionnaire about occupational information resources, we would like some general information about your school.

Q.1 Please estimate your current enrollment in each of the following grade levels. ***(If your school does not have a grade level listed, circle NA.)***

Grade 10 ______________________ NA

Grade 11 ______________________ NA

Grade 12 ______________________ NA

Q.2 Approximately what percentage of 10th, 11th, and 12th grade students in your school can be identified with each of the following curricula? ***In estimating the percentages, please consider students in these grade levels only.***

General .... ______%

Academic or college preparatory .... ______%

Vocational — Technical .... ______%

Other (Specify): ______________________

______________________________ ______%

Total = 100% of 10th, 11th, and 12th grade students

Q.3 Approximately what percentage of the students in grades 10, 11, and 12 in your school are:

American Indian or Alaskan Native? .... ______%

Asian or Pacific Islander? .... ______%

Black (not of Hispanic origin)? .... ______%

Hispanic? .... ______%

White (not of Hispanic origin)? .... ______%

Total = 100% of 10th, 11th, and 12th grade students

Q.4 Approximately what percentage of the 10th, 11th, and 12th grade students in your school live in:

An urban community? .... ______%

A suburban community? .... ______%

A rural community? .... ______%

Total = 100% of 10th, 11th, and 12th grade students

Q.5 Please estimate what percentage of your 1979 graduating class is now:
(If this information is not available, please circle NA.)

Enrolled in a regular two-year or four-year college	____%	NA
Enrolled in another post-secondary school (for example, business, vocational)	____%	NA
In an apprentice or work-training program...........	____%	NA
In military service	____%	NA
Employed full-time	____%	NA
Unemployed, but seeking work	____%	NA

Q.6 Of students who enter the tenth grade, what percentage DROPS OUT before graduation? Your best estimate will be fine. ***(Do not include students who transfer to another school.)***

	Circle One
0 - 14%	1
15 - 29%	2
30 - 49%	3
50% or more	4
Don't know	DK
School has no 10th grade	NA

Q.7 Counting both full-time and part-time counselors, how many FULL-TIME EQUIVALENT professional guidance counselors (that is, those with state certificates in guidance) are employed at your school?
(For example, 3 half-time counselors equal 1.5 full-time equivalents.)

Full-time equivalents ______________________

Q.8 Is there someone at your school who serves as director or head of CAREER guidance?

	Circle One
Yes	1
No	2

Thank you for completing this part of the questionnaire. The remainder should be completed by the director of career guidance or other member of the school staff who is most knowledgeable about the occupational information resources of your school.

PART

B Questions for Most Knowledgeable Staff Member

A Note On Our Terminology

We are aware that many different terms are used to refer to information about the world of work. In the following pages, we consistently use the term OCCUPATIONAL INFORMATION. By this term we mean all data or experience that students can obtain to help them decide on and plan for future courses of action in the world of work. We do not include skill training or education to prepare for an occupation.

Section I — Management of Occupational Information

Q.1 Which of the following best describes your position or assignment?

	Circle One
Director of guidance	1
Coordinator of career education or guidance	2
Guidance counselor	3
Career education or guidance specialist	4
Principal or assistant principal	5
Vocational education teacher	6
Teacher of a non-vocational subject	7
Librarian	8
Other (specify): ____________________	9

Q.2 How effective do you find each of the following methods for getting students to use the occupational information resources in your school?

	Circle one on each line			
	Very effective	Somewhat effective	Not effective	Method not used
a. Counselor referrals	1	2	3	NA
b. Teacher referrals	1	2	3	NA
c. Bulletin board displays	1	2	3	NA
d. Announcements in school newspaper	1	2	3	NA
e. Announcements in classrooms or assemblies	1	2	3	NA
f. Group visits or orientations	1	2	3	NA
g. Other (specify): ____________________	1	2	3	NA

Q.3 What ONE person is primarily responsible for each of the following tasks in connection with occupational information at your school? *(Circle NA if a task is not performed at your school.)*

	Circle one on each line							
	Principal or assistant principal	Teacher	Director of guidance or staff	Coordinator of career education or staff	Librarian	State, regional, or district staff member	Other	Task not performed
a. Planning major expenditures (for equipment or other resources)	1	2	3	4	5	6	7	NA
b. Evaluating new or replacement materials	1	2	3	4	5	6	7	NA
c. Helping students locate materials or advising on where to look for specific information on occupations	1	2	3	4	5	6	7	NA
d. Arranging for special programs, events or days	1	2	3	4	5	6	7	NA
e. Supervising exploratory work-experience programs	1	2	3	4	5	6	7	NA
f. Making data on jobs held by former students available to students	1	2	3	4	5	6	7	NA
g. Deciding when to discard old and obsolete materials	1	2	3	4	5	6	7	NA
h. Maintaining index of occupational information materials	1	2	3	4	5	6	7	NA
i. Coordinating activities with external agencies that provide occupational information	1	2	3	4	5	6	7	NA

Q.4 To what extent do the professional guidance counselors in your school perform each of the following activities? ***(By professional guidance counselors, we mean those with state certificates in guidance.)***

Circle one on each line

	Not at all	Somewhat	A great deal	Don't know
a. Directing students to books, pamphlets, films, or other sources of GENERAL occupational information	1	2	3	DK
b. Directing students to SPECIFIC sources of information for a particular occupation	1	2	3	DK
c. Directly answering students' questions about occupational information	1	2	3	DK
d. Interpreting occupational information obtained by students	1	2	3	DK
e. Assisting students with career decisions after they have used some of the occupational information resources available	1	2	3	DK

Q.5 If your school has a committee to review occupational information materials or programs, who are the members? ***(If your school has no committee, circle NA.)***

	Circle all that apply
We have no committee	NA
Principal	1
Guidance counselors	2
Career education staff	3
Students	4
Teachers	5
Librarian	6
Local employers, labor leaders, or community representatives	7
Regional or state agency representatives	8
Parents	9
Other (specify): ______________________	
______________________________________	10

Q.6 Please estimate what percentage of the time spent with 10th-12th grade students by ALL your professional guidance counselors involves each of the topics listed below.

Consider the entire school year and the time of all counselors with state certificates in guidance.

Circle one on each line

Percentage of professional time with students involving:	0 - 14%	15 - 29%	30 - 49%	50% or more	Don't know
a. Choice of high school courses	1	2	3	4	DK
b. College admissions and selection	1	2	3	4	DK
c. Occupational choice and career planning	1	2	3	4	DK
d. Job placement	1	2	3	4	DK
e. Students' attendance, discipline and other school and personal problems	1	2	3	4	DK

Q.7 On the following list, circle any system used at your school for cataloguing, filing, indexing, shelving, or displaying occupational information resources. *(You may have one system for publications, another for audio-visual materials, etc.)*

		Circle all that apply
Your own grouping system	Alphabetical by title of occupation	1
	Type or level of education or training (college, apprenticeship, etc.)	2
	Related school subjects (math, history, etc.)	3
	Interest fields (outdoors, mechanical, etc.)	4
	Type of industry or employer (electronics, transportation, etc.)	5
	Other (specify) ______________________	6
Prepared systems	Dewey decimal system	7
	D.O.T. numbers (e.g., Chronicle Guidance system)	8
	Work or worker trait groups (DOL or AEL system)	9
	Alphabetized D.O.T. subject headings (e.g., Bennett system)	10
	SRA job-family classifications	11
	Categories used by vocational interest inventories (e.g., Holland, Kuder, Strong-Campbell)	12
	U.S.O.E. categories	13
	Standard industrial classifications	14
	U.S. Census classifications	15
	Other (specify) ______________________	16
	None	17

Q.8 Does your school have a central index by which a student can locate ALL the information available from various sources about a specific occupation or cluster of occupations?

	Circle one
Yes	1
No	2

Q.9 How much did your school spend in the 1978-1979 school year for each of the following types of occupational information resources? Please give your best estimate. ***(If a type is not available at your school, circle NA.)***

	Circle one on each line					
	Less than $300	**$300 - $499**	**$500 - $999**	**$1,000 - $2,000**	**More than $2,000**	**Not available**
a. Publications	1	2	3	4	5	NA
b. Audio-visual	1	2	3	4	5	NA
c. Microfiche	1	2	3	4	5	NA
d. Computerized information system	1	2	3	4	5	NA
e. Non-computerized sorting materials (for example, needlesort, keysort)	1	2	3	4	5	NA
f. Other (specify): ____________	1	2	3	4	5	NA

Q.10 Which of the following guides and indexes to occupational information resources are available at your school for ORDERING OR SELECTING guidance materials?

	Circle all that apply
Career Guidance Index (Careers, Inc.)	1
Career Index (Chronicle Guidance Publications annual directory)	2
Counselor's Information Service (B'nai B'rith)	3
Current Career and Occupational Literature (Goodman)	4
Educators Guide to Free Guidance Materials	5
Guidance Exchange (annual digest)	6
Guide to Indexes as a Resource for Occupations and Careers (B'nai B'rith)	7
Guide to Local Occupational Information (Employment and Training Administration, formerly Manpower Administration)	8
Index to Vocational & Technical Education (NICEM)	9
Inform (APGA monthly newsletter)	10
Journal of College Placement (New Career Media)	11
NVGA Bibliography of Current Career Information (Triennial)	12
Vocational Guidance Quarterly (current career literature section)	13
An index to materials available from an external career resource center	14
Publishers' catalogs	15
Other (specify) ____________	16
None	17

Section II — Occupational Information Resources at Your School

Q.11 A number of occupational information resources are listed in the three columns below. Which of these are available AT YOUR SCHOOL?

Please circle the code next to each resource that is available at your school. (Do not include additional resources that may be available from an external source, such as a district resource center.) The resources are grouped by category. If your school has a resource not included on the list, please enter its name in the space provided for its category.

Bound References

A1 Occupational Outlook Handbook
A2 Dictionary of Occupational Titles
A3 Guide for Occupational Exploration
A4 Encyclopedia of Careers and Vocational Guidance (Hopke)
A5 I Can Be Anything: Careers and Colleges for Young Women
A6 Employment Opportunities for the Handicapped
A7 The National Apprenticeship Program
A8 Occupational handbooks of the military services
A9 Worker Trait Group Guide (AEL)
A10 Other (specify): ____________________

Occupational Briefs and Kits

B1 B'nai B'rith briefs
B2 Careers, Inc. (Largo, FL) briefs/kits
B3 Catalyst pamphlets
B4 Chronicle Guidance briefs/library
B5 SRA briefs/kits
B6 Occupational Guidance briefs (Finney Co.)
B7 Guidance Centre monographs
B8 Job Fact Sheets (Alumnae Advisory Center, now Center for Career Planning)
B9 Vocational Biographies
B10 Occupational briefs published by your state or another state
B11 Pamphlets prepared by professional associations
B12 Pamphlets prepared by private business (e.g., General Motors)
B13 Write-ups on jobs held by your former students
B14 Other (specify): ____________________

Periodicals

C1 Career World
C2 Occupations in Demand
C3 Occupational Outlook Quarterly
C4 Real World
C5 Civil service exam bulletins (state and federal)
C6 Other (specify): ____________________

Series of Books on Individual Occupations

D1 Opportunities in . . . (VGM)
D2 Your Career in . . . (Julian Messner)
D3 Your Future in . . . (Arco or Richards Rosen)
D4 Other (specify): ____________________

List of Employers

E1 Directories of businesses and industries
E2 School-prepared card files or lists of employers, speakers, or contact people
E3 Other (specify): ____________________

Educational Directories for Occupations

F1 College directories arranged by occupations (e.g., College Blue Book: Degrees Offered by College Subject)
F2 Vocational school directories (e.g., Lovejoy's Career and Vocational School Guide, and NCES Directory of Post Secondary Schools with Occupational Programs)
F3 A job training directory for your staff
F4 Other (specify): ____________________

Computerized Information Systems

G1 CHOICES (Canadian System)
G2 COIN (Coordinated Occupational Information Network)
G3 CVIS (Computerized Vocational Information System)
G4 DISCOVER
G5 GIS (Timeshare's Guidance Information System)
G6 Your state system (including adaptation of other state system)
G7 Your school or county system
G8 Other (specify): ____________________

Audio-Visual Materials

H1 Your own school-made slides, tapes, cassettes, films, videotapes
H2 Externally produced slides, tapes, cassettes, films, videotapes
H3 Other (specify): ____________________

Microforms

I1 State or regional microfilm or microfiche (such as VIEW)
I2 Local microfilm or microfiche
I3 Other (specify): ____________________

Non-Computerized Sorting Materials

J1 Keysort or needlesort (specify): ____________________
J2 Score interpretation guides for inventories or tests (specify): ____________________
J3 Other (specify): ____________________

School-Arranged Experiences

K1 School courses in career planning
K2 Occupational information units in subject matter classes
K3 Exploratory work experience (co-op work-study, EBCE, etc.)
K4 Career days, speakers, assemblies
K5 Career clubs
K6 Volunteer service arranged by school
K7 Job site tours or visits (field trips)
K8 Job shadowing (in-depth observation of a worker)
K9 Conferences with community representatives (employed alumni, workers, employers)
K10 Other (specify): ____________________

Simulations

L1 Simulations (such as Singer or SRA Job Experience Kits, school-prepared simulations)

Personal Contact With School Staff

M1 Conferences with counselors
M2 Assistance from other guidance staff

Q.12 Different counselors often prefer to use different resources to answer questions about the same topic. Of all the resources you circled in Question 11, which would YOU be most likely to use to get ANSWERS TO QUESTIONS about each of the topics listed below?

Please use the code of Question 11 to record the resource you would use for each topic. If none of your resources are appropriate, enter NA. If you do not know which resource you would choose, enter DK.

Resource you would use to answer questions about:	**Code**
a. Education, training, licensing and certification requirements for entry into various occupations . . .	______
b. Employment outlook in various occupations over the next 5 to 10 years	______
c. Special aptitude, ability or skill requirements for various occupations	______
d. Descriptions of work activities in various occupations	______
e. The work environments in various occupations	______
f. The security and job tenure of various occupations	______
g. Opportunities for helping others in various occupations	______
h. Accessibility of various occupations to the handicapped	______
i. The most up-to-date local wage and salary information	______
j. Occupations which meet or exceed students' multiple specifications (e.g., salary, interest field, security)	______

Q.13 Of all the resources you circled in Question 11, which would you be most likely to use for each of the PURPOSES listed below?

Please use the code of Question 11 to record the resource you would use for each purpose. If none of your resources are appropriate, enter NA. If you do not know which resource you would choose, enter DK.

Resource you would use for the purpose of:	**Code**
a. Arousing students' interest in exploring occupational information generally	______
b. Familiarizing students with many occupations	______
c. Giving students detailed information about an occupation with which they were already familiar . .	______
d. Suggesting previously unfamiliar occupations for a student to consider	______
e. Enabling poor readers to get information about occupations	______
f. Helping college-bound students select colleges with programs suitable for their occupational plans .	______
g. Helping non-college-bound students select schools or training programs suitable for their occupational plans	______

	First choice	***Second choice***
Q.14 Which two resources currently available in your school do you rate as most valuable overall? ***Please use the codes in Question 11 to record your first and second choices.***	☐	☐
Q.15 Of the items you did NOT circle in Question 11, which two resources would you add at your school IF YOUR BUDGET PERMITTED? ***Please use the codes in Question 11 to record your first and second choices.***	☐	☐

Section III — Published Occupational Information Resources

Q.16 The questions in this section concern published occupational information resources at your school. Please indicate whether your school has occupational information in published form *(that is, the types of materials in categories A through F of Question 11.*

	Circle one	
Yes	1 →	*Proceed to Question 17*
No	2 →	*Skip to Question 19, Page 11*

Q.17 How many copies of the OCCUPATIONAL OUTLOOK HANDBOOK does your school have, and in what year were they published? Please indicate the number of copies opposite the year of publication.

	Circle one on each line					
	None	*One*	*Two*	*Three*	*Four*	*Five or More*
1978-1979	0	1	2	3	4	5
1976-1977	0	1	2	3	4	5
1974-1975	0	1	2	3	4	5
1973 or earlier	0	1	2	3	4	5

Q.18 How often has your school reviewed its collection of publications on occupational information in order to remove obsolete materials?

	Circle One
Never	1
Less than once a year	2
Once a year	3
More than once a year	4

Section IV — Computerized Information Systems

Q.19 The questions in this section concern a computerized occupational information system. Please indicate whether your school has terminals or printers that enable you to get occupational information from a computer.

	Circle one	
Yes	1	→ *Skip to Question 21*
No	2	→ *Proceed to Question 20*

Q.20 Did your school EVER have a computerized occupational information system?

	Circle one	
Yes	1	→ *Skip to Question 28, Page 13*
No	2	
Not sure	3	

Q.21 Approximately what percent of the usage of the computer-based information system at your school involves each of the following activities?

	Percent of usage
a. Students use a terminal by themselves to get information from the computer	______%
b. Staff assist students at a terminal to get information from the computer	______%
c. Staff get information from the computer for later transmission to students	______%

Q.22 To what year does most of the wage and salary information in your computerized occupational information system apply?

	Circle one
1978 - 1979	1
1976 - 1977	2
1974 - 1975	3
1973 or earlier	4
Don't know	DK

Q.23 Are there any terminals for the computerized information system in your school?

	Circle one	
Yes	1	→ *Proceed to Question 24*
No	2	→ *Skip to Question 28, Page 13*

Q.24 How many terminals are available in your school for use by the students to get occupational information?

Number of terminals ☐

Q.25 Please estimate how many hours per day, ON THE AVERAGE, a terminal in your school is:

	Hours per day
a. AVAILABLE FOR USE by students to get occupational information?	☐
b. ACTUALLY USED by students to get occupational information?	☐

Q.26 How are the students scheduled to use a computer terminal to get occupational information?

	Circle all that apply
Student-initiated request	1
Assigned by teacher	2
Assigned by guidance counselor	3
Other	4
Students are not scheduled	NA

Q.27 Who is available to assist students in using the computer?

	Circle all that apply
Guidance counselor	1
Secretary	2
Other	3
Students can use it without help	NA

Section V — Audio-Visual, Microfiche, and Non-Computerized Sorting Materials

Q.28 This set of questions concerns audio-visual, microfiche, and non-computerized sorting materials (for example, a keysort or needlesort). Please indicate whether your school has occupational information in ANY of these forms *(that is, the types of materials listed in categories H through J of Question 11).*

	Circle one	
Yes	1	→ *Proceed to Question 29*
No	2	→ *Skip to Question 39, Page 16*

Q.29 How often is there a review of your school's collection of occupational information in the form of audio-visual, microfiche, and non-computerized sorting materials in order to remove obsolete materials?

Circle one in each COLUMN

	Audio-visual materials	Microfiche materials	Non-computerized sorting materials
Never	1	1	1
Less than once a year	2	2	2
Once a year	3	3	3
More than once a year	4	4	4
Don't know	DK	DK	DK
This type of material is not available	NA	NA	NA

Q.30 At your school, approximately how many occupations are covered by each of these types of materials?

Circle one in each COLUMN

	Audio-visual materials	Microfiche materials	Non-computerized sorting materials
20 or fewer	1	1	1
21 to 100	2	2	2
101 to 200	3	3	3
201 or more	4	4	4
This type of material is not available	NA	NA	NA

Q.31 How are students scheduled to use the audio-visual, microfiche, and non-computerized sorting materials?

	Circle all that apply
Student-initiated request	1
Assigned by teacher	2
Assigned by guidance counselor	3
Other	4
Students are not scheduled	NA

Q.32 How many filmstrip viewers and cassette players does your school have for students to use to get occupational information?

(If none, please write in "0.")

Number of filmstrip viewers and cassette players .... ☐ *(If "0," skip to Question 34)*

Q.33 Please estimate how many hours per day, ON THE AVERAGE, a filmstrip viewer and cassette player is:

	Hours per day
a. AVAILABLE FOR USE by students to get occupational information?	☐
b. ACTUALLY USED by students to get occupational information?	☐

Q.34 How many microfiche viewers or reader-printers does your school have for students to use to get occupational information?

(If none, please write in "0.")

Number of microfiche viewers or reader-printers .... ☐ *(If "0," skip to Question 37)*

Q.35 Please estimate how many hours per day, ON THE AVERAGE, a microfiche viewer or reader-printer is:

	Hours per day
a. AVAILABLE FOR USE by students to get occupational information?	☐
b. ACTUALLY USED by students to get occupational information?	☐

Q.36 To what year does most of the wage and salary information in your microfiche apply?

	Circle one
1978 - 1979	1
1976 - 1977	2
1974 - 1975	3
1973 or earlier	4
Don't know	DK

Q.37 How many sets of needlesort or keysort materials does your school have for students to use to get occupational information?

(If none, please write in "0.")

Number of needlesort or keysort sets ...... ☐ *(If "0," skip to Question 39, Page 16)*

Q.38 Please estimate how many hours per day, ON THE AVERAGE, a needlesort or keysort is:

	Hours per day
a. AVAILABLE FOR USE by students to get occupational information?	☐
b. ACTUALLY USED by students to get occupational information?	☐

Section VI — School-Arranged Experiences

Q.39 The next set of questions is about school-arranged experiences, simulations, or personal contacts which provide students with occupational information. Please indicate whether your school offers any of these experiences. ***(That is, the types of experiences in categories K through M of Question 11.)***

Circle one

Yes . . . . 1 ⟶ *Proceed to Question 40*

No . . . . 2 ⟶ *Skip to Question 48, Page 19*

Q.40 Which of the following experiences offered by your school in grades 10-12 are required of all students, available to all students, or available only to students in certain curricula?

(If your school does not offer an experience, please circle NA.)

		Circle one on each line			
		Required of all students	**Available to all students**	**Available only to students in certain curricula**	**Not offered**
a.	School courses in career planning	1	2	3	NA
b.	Occupational information units in subject matter courses	1	2	3	NA
c.	Exploratory work-experience programs (co-op work-study, EBCE, etc.)	1	2	3	NA
d.	Career days	1	2	3	NA
e.	Job site tours or visits (field trips)	1	2	3	NA
f.	Job shadowing (in-depth observation of a worker)	1	2	3	NA
g.	Simulations (e.g., Singer, SRA Job Experience Kits)	1	2	3	NA

Q.41 At what grade levels is each of the following experiences offered to students?

		Circle all that apply			
		Grade 10	**Grade 11**	**Grade 12**	**Not offered**
a.	School courses in career planning	1	2	3	NA
b.	Occupational information units in subject matter courses	1	2	3	NA
c.	Exploratory work-experience programs (co-op work-study, EBCE, etc.)	1	2	3	NA

Q.42 On the average, about how many 10th-12th grade students PER YEAR take part in each of the following experiences offered by your school?

		Record on each line	
		Number of students	**Experience not offered**
a.	School courses in career planning	________	NA
b.	Occupational information units in subject matter courses	________	NA
c.	Exploratory work-experience programs (co-op work-study, EBCE, etc.)	________	NA
d.	Career days	________	NA
e.	Job site tours or visits (field trips)	________	NA
f.	Job shadowing (in-depth observation of a worker	________	NA
g.	Simulations (e.g., Singer, SRA Job Experience Kits)	________	NA

Q.43 During 10th-12th grades, HOW OFTEN do MOST students participate in each of the following experiences arranged by your school?

		Circle one on each line					
		Most do NOT participate	**Most participate once**	**Most participate two to three times**	**Most participate four or more times**	**Not offered**	**Don't know**
a.	Career days	0	1	2	3	NA	DK
b.	Job site tours or visits (field trips)	0	1	2	3	NA	DK
c.	Conferences with community representatives (employed alumni, workers, employers)	0	1	2	3	NA	DK
d.	Simulations (e.g., Singer or SRA Job Experience Kits)	0	1	2	3	NA	DK

Q.44 During the 10th-12th grades, HOW MUCH TIME in all does a PARTICIPATING student generally spend in each of the following experiences arranged by your school?

		Circle one on each line					
		One day to one week	**More than one week but less than one semester**	**One semester**	**More than one semester**	**Not offered**	**Don't know**
a.	School courses in career planning	1	2	3	4	NA	DK
b.	Occupational information units in subject matter courses	1	2	3	4	NA	DK
c.	Exploratory work experience (co-op work-study, EBCE, etc.)	1	2	3	4	NA	DK
d.	Volunteer service arranged by school	1	2	3	4	NA	DK
e.	Job shadowing (in-depth observation of a worker)	1	2	3	4	NA	DK

Q.45 How many occupations are covered by each of the following experiences in your 10th-12th grades?

	Circle one on each line					
	1 to 10 occupations	11 to 30 occupations	31 to 50 occupations	More than 50 occupations	Not offered	Don't know
a. School courses in career planning	1	2	3	4	NA	DK
b. Occupational information units in subject matter courses	1	2	3	4	NA	DK
c. Exploratory work-experience programs (co-op work-study, EBCE, etc.)	1	2	3	4	NA	DK
d. Job shadowing (in-depth observation of a worker)	1	2	3	4	NA	DK
e. Simulations (e.g., Singer, SRA Job Experience Kits)	1	2	3	4	NA	DK

Q.46 How are students made aware of the experiences, simulations and personal contacts arranged by your school?

	Circle all that apply
Experiences are listed in course offerings	1
Presentations are given to student body	2
Presentations are given to parents	3
Advertisements are presented on radio and TV	4
Teachers must recommend students	5
Conferences with counselors	6
Other (specify): ______________________ ______________________________	7
No particular method is used	NA

Q.47 What type of follow-up, if any, is regularly made of students who participate in school-arranged experiences, simulations, and personal contacts?

	Circle all that apply
Conference with counselor or teacher	1
Group discussion	2
Test or questionnaire	3
Student report — oral	4
Student report — written	5
Other (specify): ______________________	6
No particular method is used	NA

Section VII — Miscellaneous Questions

Q.48 Which of the following sources of information about LOCAL job opportunities does your school have?

	Circle all that apply
Job bank listings or reports from state employment service or department of labor, showing jobs available for local area (city or state)	1
Tabulations of local newspaper employment advertisements by occupation or type of job	2
Notices of jobs available locally	3
List of contacts at local public or private employment agencies and training programs who can help students get jobs or job training	4
List of representatives of local unions	5
Information from local government (city, county, state) civil service and employment service offices	6
Information about local jobs from follow-up of former students who work in area	7
Other (specify): ______	8
None	9

Q.49 Which of the following occupational information resources designed for the handicapped does your school have?

	Circle all that apply
Braille for the blind	1
Tape recording for the blind	2
Sound amplification for the hearing impaired	3
Simplified reading material for the mentally retarded	4
Other (specify): ______	5
None	NA

Q.50 In which of the following languages other than English does your school PROVIDE OCCUPATIONAL INFORMATION?

	Circle all that apply
Spanish	1
French	2
Other (specify): ______	3
None	NA

Q.51 Does a substantial proportion of the occupational information resources available to your students come from an EXTERNAL RESOURCE CENTER (district, regional, or state)? This may be a career resource center, a media lending library, a mobile unit, or other provider of occupational information.

Yes . . . . 1 ⟶ *Proceed to Question 52*

No . . . . 2 ⟶ *Please turn to the back cover of this booklet*

Q.52 Under what auspices is the center maintained?

(If more than one external center provides a substantial proportion of the occupational resources available to your students, please answer about the one you use most often.)

	Circle all that apply
State educational information center	1
State employment service	2
Other state agency	3
County	4
School district	5
Local college	6
Other (specify): ______________________	7

____

Q.53 What types of resources does the center make available for use by your students?

	Circle all that apply
Publications	1
Films, filmstrips, other audio-visual materials	2
Microfiche	3
Computer terminals	4
Keysorts or needlesorts	5
Speakers or career days	6
Center-arranged exploratory work experiences, simulations, or personal contacts	7
Other (specify): ______________________	8

____

In Conclusion

Does your school have any occupational information programs or resources for grades ten through twelve not covered in this survey which you feel have a significant influence on the educational or career plans of students? If so, please list and describe these below.

Are there any additional comments you would like to make concerning any of the topics addressed by this survey? For example, what improvements would you like to see in occupational information?

We would be happy to send you a summary of the survey results. If you would like to receive a copy, please check the box below and fill in your return address on the business-reply envelope to ensure that we have a correct address.

Yes, send me a summary of the survey results ☐

Thank you for completing this questionnaire. Your participation in the survey has contributed directly to the successful outcome of this timely study. Please insert the completed questionnaire booklet into the pre-addressed envelope and mail to:

Career Information Survey
Mathematica Policy Research, Inc.
Post Office Box 2393
Princeton, New Jersey 08540

NIE 200B

FORM APPROVED
FEDAC NO. S122
APP. EXP: 06/80

APPENDIX B

LEARNING ABOUT OCCUPATIONS

A NATIONAL STUDY OF HIGH SCHOOL STUDENTS

Agency affiliation:
National Institute of Education
National Occupational Information
Coordinating Committee
Educational Testing Service
The College Board
Mathematica Policy Research

This report is authorized by legislation (20 USC 1221e). While you are not required to respond, your cooperation is needed to make the results of the survey comprehensive, accurate and timely.

Mathematica Policy Research, Inc.
mpr
P.O. Box 2393
Princeton
New Jersey 08540
609-799-2600

Dear Student:

Good information about different types of jobs can be very important to students trying to decide on a career. The federal government is studying ways to help high school students get better information. We are asking you to help us by filling out this questionnaire. It contains questions about the materials and activities high school students use to get information about different types of jobs. There are also a few questions about you, so that we can find out if different students use different materials. (Most students can finish the questionnaire in less than half an hour.)

Only a few students at your school are being asked to take part in this study. You were selected by a very careful procedure which gave every high school student in the country the same chance of being chosen. With this procedure, the answers of a small number of students can stand for the answers of all students. However, if the procedure is to give accurate information, it is very important that every student chosen take part — including those who know very little about different types of jobs.

Your participation is entirely voluntary. Your answers will be completely confidential. Neither you nor your school will ever be named. However, if you object to any question, or feel your parents would object, you may omit that question.

If you have any questions, you may ask:

who is helping with the study at your school. When you have finished, please SEAL the questionnaire in the envelope in which it came, to ensure that your answers are confidential. Return the envelope to the person at your school named above.

Thank you for your cooperation.

Sincerely,

Barbara R. Phillips

Barbara R. Phillips
Survey Director

To ensure that your answers remain confidential, please do NOT sign your name to this questionnaire.

Part

A About You

The answers to some questions have arrows to show you which question you should go to next. If there are no arrows, go on to the next question.

Q.1 What grade are you in now? ***(Circle the number of your answer.)***

1 10th Grade

2 11th Grade

3 12th Grade

4 Other (Please describe) ______________________________

5 Not sure

Q.2 When did you start to go to this school? ***(Circle one number.)***

1 This school year

2 Last school year or before

Q.3 Which ONE of the following best describes your present high school program? ***(Circle one number.)***

1 General

2 Academic/college preparatory

3 Vocational-technical

4 Other (Please describe) ______________________________

Q.4 Compare your reading ability to your classmates'. In which of these groups would you put yourself? ***(Circle one number.)***

1 Top fifth

2 Upper middle fifth

3 Middle fifth

4 Lower middle fifth

5 Bottom fifth

Q.5 What do you plan to do when you leave high school? ***(Circle the numbers of all the answers that apply to you.)***

1 Go to a vocational, technical, business or trade school
2 Enter an apprenticeship or on-the-job training program
3 Go to a two-year college
4 Go to a four-year college
5 Get a job right away
6 Enter the armed forces (Army, Navy, Air Force, Marines)
7 Be a homemaker for my own family
8 I have not decided what to do when I leave school
9 Other (Please describe) ______________________________

Q.6 Are you:

1 Male
2 Female

Q.7 Which ONE of the following describes you best?

1 American Indian or Alaskan native
2 Asian or Pacific Islander
3 Black, not of Hispanic (Spanish) origin
4 Hispanic (Spanish)
5 White, not of Hispanic (Spanish) origin

Q.8 Do you have a physical handicap that limits the kind of work you can do? ***(Circle one number.)***

1 Yes ⟶ **Q.9 What kind of handicap do you have?** ***(Circle the numbers of all the answers that apply to you.)***
2 No

1 Visual (difficulty seeing)
2 Hearing
3 Speech
4 Orthopedic (for example, "crippled")
5 Other (Please describe) ______________

PART

B Using Books, Magazines, Pamphlets and Reports

Now, we want to ask you about ways you may have learned about occupations. By OCCUPATION we mean a type of job. Three examples of occupations are carpenter, secretary and lawyer.

The questions in this section ask about using books, magazines, pamphlets and reports to learn about occupations.

Q.10 Does your school have any of the following types of printed materials that you can use to get information about occupations?

Does your school have:	***Circle either "Yes", "No" or "Not sure" for each of the 4 parts of the question***		
• Reference books that describe many occupations, such as the Occupational Outlook Handbook (OOH)..........	Yes	No	Not sure
• Magazines about occupations, such as Career World..........................	Yes	No	Not sure
• Pamphlets, briefs or kits about occupations, such as SRA Briefs? (Usually each pamphlet describes a single occupation.).............................	Yes	No	Not sure
• Reports about their jobs by people who used to be students at your school..........................	Yes	No	Not sure

Q.11 Did you circle "Yes" AT LEAST ONCE in Question 10?

Yes ⟶ *Go to Question 12, Page 4*

No ⟶ *Go to Part C, Page 6*

Q.12 How did you find out that your school has reference books, magazines, pamphlets or reports that you can use to get information about occupations?

(Circle the numbers of all the answers that apply to you.)

1 From a guidance counselor or guidance staff member

2 From a career education specialist

3 From a teacher during class

4 From a teacher outside class

5 From a school librarian

6 From a poster or bulletin board

7 From the school newspaper

8 From a friend at school

9 From a group visit or orientation

10 Other (Please describe) ______________________________

11 I don't remember how I found out.

Q.13 AT THIS SCHOOL, since you started tenth grade, how often have you read the reference books, magazines, pamphlets or reports about occupations?

If your school doesn't have a type of printed material, circle "Never."

How often have you read:	***Circle one answer for each of the 4 parts of the question***			
• Reference books that describe many occupations	Never	Once	A few times	Many times
• Magazines about occupations	Never	Once	A few times	Many times
• Pamphlets, briefs or kits about occupations	Never	Once	A few times	Many times
• Reports about their jobs by people who used to be students at your school	Never	Once	A few times	Many times

Q.14 How many times did you circle "Never" in Question 13?

3 times or less → *Go to Question 15*

All 4 times → *Go to Part C, Page 6*

.15 What kind of information were you trying to get when you used the reference books, magazines, pamphlets or reports about occupations AT THIS SCHOOL? ***(Circle all that apply to you.)***

1 A description of the things people usually do in an occupation

2 The abilities, education or training needed to enter an occupation

3 Outlook for job openings in an occupation in the 1980s

4 Wage or salary in an occupation

5 Satisfactions you might get in an occupation, for example, chances to help others, leadership, prestige

6 A list of occupations you might like

7 Other kinds of information about occupations

(Please describe) ____________________

8 I wasn't looking for any particular kind of information about occupations. → *Go to Part C, Page 6*

Q.16 Did you find the information you wanted? ***(Circle one number.)***

1 All of it

2 Most of it

3 Some of it

4 None of it

1–3 → **Q.17 Was it hard for you to understand the information?**

1 Yes

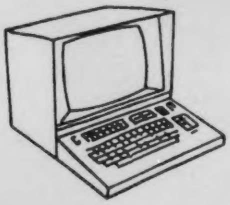
2 Sometimes

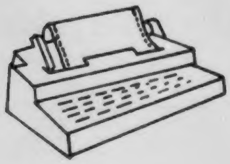
3 No

PART

C Information from a Computer

Some schools provide information about occupations (different types of jobs) from a COMPUTER. Sometimes students use a computer terminal (with or without the help of someone at the school) to get the information. Sometimes students fill out a form and get back a report from the computer. There are two basic types of terminals. They look something like this:





Q.18 At your school, can you get information about occupations from a COMPUTER? *(Circle one number.)*

1 Yes

2 No

3 Not sure

→ *Go to Part D, Page 8*

Q.19 How did you find out that students at your school can get information about occupations from a computer? *(Circle the numbers of all the answers that apply to you.)*

1 From a guidance counselor or guidance staff member

2 From a career education specialist

3 From a teacher during class

4 From a teacher outside class

5 From a school librarian

6 From a poster or bulletin board

7 From the school newspaper

8 From a friend at school

9 From a group visit or orientation

10 From a notice or pamphlet handed out at school

11 Other (Please describe) ____________________

12 I don't remember how I found out.

Q.20 AT THIS SCHOOL, since you started tenth grade, how often have you used a computer to get information about occupations?

1 Never → *Go to Part D, Page 8*
2 Once
3 A few times
4 Many times

Q.21 What kind of information about occupations were you trying to get? ***(Circle all that apply to you.)***

1 A description of what people usually do in an occupation
2 The abilities, education or training needed to enter an occupation
3 Outlook for job openings in an occupation in the 1980s
4 Wage or salary in an occupation
5 Satisfactions you might get in an occupation, for example, chances to help others, leadership, prestige
6 A list of occupations you might like
7 Other kinds of information about occupations
(Please describe) ____________________
8 I wasn't looking for any particular kind of information about occupations. → *Go to Part D, Page 8*

Q.22 Did you find the information you wanted?

1 All of it
2 Most of it
3 Some of it
4 None of it

→ **Q.23 Was it hard for you to understand the information?**

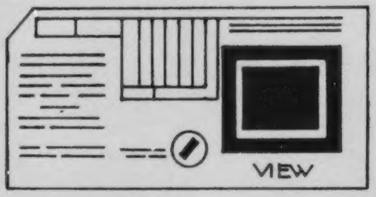
1 Yes
2 Sometimes
3 No

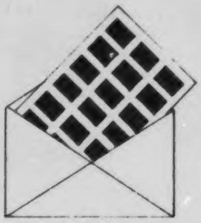
PART

D Using Microfiche

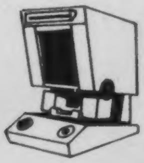
Some schools have information about occupations (different types of jobs) on MICROFICHE. The information is printed in very small letters on little sheets of film. Sometimes the sheets of film are mounted on a card. Sometimes they are stored in envelopes. To read microfiche, you use a special machine, called a viewer or reader-printer.

Microfiche looks like this:





A viewer or reader-printer looks something like this:



Q.24 Does your school have MICROFICHE that you can use to get information about occupations? *(Circle one number.)*

1 Yes

2 No

3 Not sure

(2, 3) → *Go to Part E, Page 10*

Q.25 How did you find out that your school has information about occupations on microfiche? *(Circle the numbers of all the answers that apply to you.)*

1 From a guidance counselor or guidance staff member

2 From a career education specialist

3 From a teacher during class

4 From a teacher outside class

5 From a school librarian

6 From a poster or bulletin board

7 From the school newspaper

8 From a friend at school

9 From a group visit or orientation

10 Other (Please describe) ______________________

11 I don't remember how I found out.

Q.26 Since you started tenth grade, how often have you used the microfiche AT THIS SCHOOL to get information about occupations?

1 Never → *Go to Part E, Page 10*
2 Once
3 A few times
4 Many times

Q.27 What kind of information were you trying to get? *(Circle all that apply to you.)*

1 A description of what people usually do in an occupation
2 The abilities, education or training needed to enter an occupation
3 Outlook for job openings in an occupation in the 1980s
4 Wage or salary in an occupation
5 Satisfactions you might get in an occupation, for example, chances to help others, leadership, prestige
6 A list of occupations you might like
7 Other kinds of information about occupations
(Please describe) ______________________________
8 I wasn't looking for any particular kind of information about occupations. → *Go to Part E, Page 10*

Q.28 Did you find the information you wanted?

1 All of it
2 Most of it
3 Some of it
4 None of it

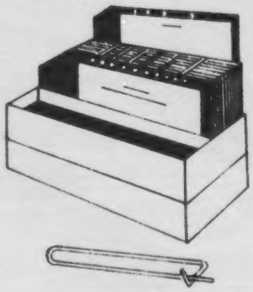
(1–3) → **Q.29 Was it hard for you to understand the information?**

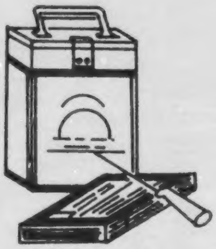
1 Yes
2 Sometimes
3 No

PART

E Using Sorting Cards

Some schools have sorting cards that students can use to select occupations (different types of jobs) they might like. Decks of these cards are often called KEYSORTS or NEEDLESORTS. You put a needle or pin through holes in the cards to select the cards for some of the occupations in the deck. Here are some different types of sorting cards:





Q.30 Does your school have SORTING CARDS you can use to select occupations that you might like? *(Circle one number.)*

1 Yes

2 No

3 Not sure

(2, 3) → *Go to Part F, Page 12*

(1) ↓

Q.31 How did you find out that your school has sorting cards to select occupations? *(Circle the numbers of all the answers that apply to you.)*

1 From a guidance counselor or guidance staff member

2 From a career education specialist

3 From a teacher during class

4 From a teacher outside class

5 From a school librarian

6 From a poster or bulletin board

7 From the school newspaper

8 From a friend at school

9 From a group visit or orientation

10 Other (Please describe) ______________________________

11 I don't remember how I found out.

Q.32 Since you started tenth grade, how often have you used sorting cards AT THIS SCHOOL to select occupations you might like?

1 Never → *Go to Part F, Page 12*
2 Once
3 A few times
4 Many times

Q.33 What kind of information were you trying to get? *(Circle all that apply to you.)*

1 A description of the things people usually do in an occupation
2 The abilities, education or training needed to enter an occupation
3 Outlook for job openings in an occupation in the 1980s
4 Wage or salary in an occupation
5 Satisfactions you might get in an occupation, for example, chances to help others, leadership, prestige
6 A list of occupations you might like
7 Other kinds of information about occupations
(Please describe) ______________________________
8 I wasn't looking for any particular kind of information about occupations. → *Go to Part F, Page 12*

Q.34 Did you find the information you wanted?

1 All of it
2 Most of it
3 Some of it
4 None of it

→ **Q.35 Was it hard for you to understand the information?**

1 Yes
2 Sometimes
3 No

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PART

F Activities at School to Help You Learn about Occupations

Q.36 Since you started tenth grade, have you taken part AT THIS SCHOOL in any of the activities listed below?
If you have not taken part, please circle NO, even if you are not sure whether your school has an activity.

Since tenth grade, have you:	***Circle one answer for each of the 9 parts of the question***	
• Seen a film or video-tape about occupations	Yes	No
• Taken part in a "simulation" (playing the part of someone in an occupation)	Yes	No
• Had a special course or a unit in a regular course to help you plan your career or give you information about occupations	Yes	No
• Gone to a "career day" or "fair"	Yes	No
• Taken part in a work-study or internship program or in volunteer work ARRANGED BY YOUR SCHOOL	Yes	No
• Had a tour of a plant, business or other place where people work	Yes	No
• Taken part in "job shadowing" (observing a person at work)	Yes	No
• Met with people who used to be students at your school to talk about their jobs	Yes	No
• Met with other workers or employers	Yes	No

Q.37 How did you find out that this school has one or more of the activities listed in Question 36?

(Circle the numbers of all the answers that apply to you. If you don't think this school has any of these activities, circle 12.)

1 From a guidance counselor or guidance staff member
2 From a career education specialist
3 From a teacher during class
4 From a teacher outside class
5 From a school librarian
6 From a poster or bulletin board
7 From the school newspaper
8 From a friend at school
9 From a group visit or orientation
10 Other (Please describe) ____________________
11 I don't remember how I found out.
12 I don't think this school has any of these activities. → *Go to Part G, Page 14*

Q.38 What kind of information did you hope to get by taking part in the activities listed in Question 36?

(Circle all that apply to you. If you have not taken part in any of these activities at this school, circle 9.)

1 A description of what people usually do in an occupation
2 The abilities, education or training needed to enter an occupation
3 Outlook for job openings in an occupation in the 1980s
4 Wage or salary in an occupation
5 Satisfactions you might get in an occupation, for example, chances to help others, leadership, prestige
6 A list of occupations you might like
7 Other kinds of information about occupations
(Please describe) ____________________
8 I wasn't looking for any particular kind of information about occupations.
9 Since I started tenth grade, I haven't taken part in any of these activities at this school.

PART

G Getting Information about Occupations

Q.39 There are many reasons why students look for information about occupations. We have listed 9 below. Since you started tenth grade, how often have you looked for information about occupations for each of these reasons?

Count only the things you did at this school.

How often have you looked for information about occupations because of:	***Circle one answer for each of the 9 parts of the question***			
• A class assignment	Never	Once	A few times	Many times
• A talk with a school guidance counselor	Never	Once	A few times	Many times
• A talk or lecture by someone at school	Never	Once	A few times	Many times
• A film at school	Never	Once	A few times	Many times
• A bulletin board display at school	Never	Once	A few times	Many times
• A talk with your parents or other relatives	Never	Once	A few times	Many times
• Experience on a job	Never	Once	A few times	Many times
• A TV show or movie outside of school	Never	Once	A few times	Many times
• A talk with a friend	Never	Once	A few times	Many times

Q.40 Since you started tenth grade, how often have you talked with a guidance counselor or a career education specialist AT THIS SCHOOL about each of the topics listed below?

How often have you talked with a counselor about:	***Circle one answer for each of the 7 parts of the question***			
• Which high school courses you should take . . .	Never	Once	A few times	Many times
• Which occupation you should choose	Never	Once	A few times	Many times
• How you can prepare for an occupation	Never	Once	A few times	Many times
• How or where you can get a job	Never	Once	A few times	Many times
• Problems you've had with attendance or discipline	Never	Once	A few times	Many times
• Personal problems you've had	Never	Once	A few times	Many times

Q.41 Since you started tenth grade, how often have you talked about OCCUPATIONS with each of the types of people listed below?

How often have you talked about occupations with:	***Circle one answer for each of the 10 parts of the question***			
• Your friends	Never	Once	A few times	Many times
• Your parents or other relatives	Never	Once	A few times	Many times
• Guidance counselors or career education specialists	Never	Once	A few times	Many times
• Teachers	Never	Once	A few times	Many times
• People working in an occupation of interest to you	Never	Once	A few times	Many times
• People who used to be students at your school	Never	Once	A few times	Many times
• State employment service counselors	Never	Once	A few times	Many times
• Employers	Never	Once	A few times	Many times
• College admissions officers	Never	Once	A few times	Many times
• Armed forces recruiters (for Army, Navy, Air Force, Marines)	Never	Once	A few times	Many times

Q.42 Since you started tenth grade, how often have you gone to each of the places listed below TO GET INFORMATION ABOUT OCCUPATIONS?

How often have you gone to:	*Circle one answer for each of the 7 parts of the question*			
• A public library	Never	Once	A few times	Many times
• A state employment service office	Never	Once	A few times	Many times
• A district or regional career center	Never	Once	A few times	Many times
• A local college	Never	Once	A few times	Many times
• A private employment agency	Never	Once	A few times	Many times
• An Armed forces recruiting office (for Army, Navy, Air Force, Marines)	Never	Once	A few times	Many times
• An employer	Never	Once	A few times	Many times

Q.43 Do you believe that you could get all the information you need about occupations from the resources at your school? ***(Circle one number.)***

1 Yes

2 No

3 Not sure

PART

H Choosing an Occupation

Now we would like to ask you about choosing an occupation (type of job) for yourself.

Q.44 How sure are you about which occupation you want to enter? *(Circle one number.)*

1 I know exactly which occupation I want to enter.
2 I am trying to decide between two different occupations.
3 I am thinking about three or more different occupations.
4 I do not have any occupation in mind at this time.

Q.45 How well do you know what you want from an occupation?

1 I know exactly what I want from an occupation.
2 I have a general idea of what I want from an occupation.
3 I'm not sure what I want from an occupation.
4 I have no idea what I want from an occupation.

Q.46 What occupation are you thinking of entering? *(Write its name in below. If you are undecided, write in the name of an occupation you think you might like.)*

____
NAME OF OCCUPATION

Q.47 How much do you know about this occupation?

1 A great deal
2 Some → *Go to Question 48 Below*
3 Very little
4 Nothing → *Go to Question 60, Page 20*

Q.48 Where did you get your information about the occupation you named in Question 46? Below you will find a list of 37 sources of information about occupations. *Circle the numbers of ALL the sources you used to get information about this occupation. Please consider BOTH columns.*

Sources of Information

People at school

1 Teachers
2 Counselors
3 Principal or Assistant Principal
4 Librarian
5 Friends
6 Someone else at school

People outside of school

7 Parents or other relatives
8 Friends outside of school
9 Someone in the line of work of interest to you
10 Employment service representative
11 Someone else outside of school

Materials at school

12 Books, magazines, pamphlets, reports
13 Films, tapes, cassettes
14 Microfiche
15 Computer
16 Other materials at school

Places to get information outside of school

17 Public library
18 District or regional career center
19 State employment office
20 Other place outside of school

Activities arranged by school

21 Career days or assembly programs
22 Career clubs
23 Classes in career planning
24 Job shadowing (observing a worker)
25 Visits to places where people work
26 Work-study or internship programs
27 Volunteer work arranged by school
28 Meeting with people who used to be students at your school
29 Meeting with other workers or employers
30 Other activities arranged by school

Activities outside of school

31 Work
32 Watching people at their work
33 Watching TV
34 Movies
35 Clubs (for example, 4H, Future Farmers, Explorer Scouts)
36 General reading or reading for fun
37 Other activities outside of school

Q.49 How much do you know about the EDUCATION or TRAINING needed to enter the occupation you named in Q.46?

1 A great deal
2 Some
3 Very little

→ **Q.50 From what ONE source of those listed in Q.48 did you get most of this information?**

SOURCE NUMBER: ______________________

4 Nothing

Q.51 How much do you know about WAGES OR SALARIES in the occupation you named in Q.46?

1 A great deal
2 Some
3 Very little

→ **Q.52 From what ONE source of those listed in Q.48 did you get most of this information?**

SOURCE NUMBER: ______________________

4 Nothing

Q.53 How much do you know about JOB SECURITY (for example, little chance of layoffs) in the occupation you named in Q.46?

1 A great deal
2 Some
3 Very little

→ **Q.54 From what ONE source of those listed in Q.48 did you get most of this information?**

SOURCE NUMBER: ______________________

4 Nothing

Q.55 How much do you know about OPPORTUNITIES TO HELP OTHERS in the occupation you named in Q.46?

1 A great deal
2 Some
3 Very little

→ **Q.56 From what ONE source of those listed in Q.48 did you get most of this information?**

SOURCE NUMBER: ______________________

4 Nothing

Q.57 How much do you know about the USUAL ACTIVITIES of people working in the occupation you named in Q.46?

1 A great deal
2 Some
3 Very little

→ **Q.58 From what ONE source of those listed in Q.48 did you get most of this information?**

SOURCE NUMBER: ______________________

4 Nothing → *Please turn to Page 21*

Q.59 In Q.58, you told us where you got your information about what people usually do in the occupation you named. HOW DID IT HAPPEN that you got information from this source instead of some other source? *(Circle the numbers of all the answers that apply to you.)*

1 It was the only source I knew about.

2 I was told to use this source.

3 I wanted to find out what it was REALLY like to be in that occupation.

4 I wanted to get information from someone who knew me.

5 It was easy to get information from this source.

6 I thought that the information from this source would be easy to understand.

7 I thought that the information from this source would be up-to-date.

8 I wanted to get a general idea of that occupation.

9 I wasn't really looking for information at the time.

10 Other (Please describe) ______________________

Please turn to Page 21

Answer Question 60 ONLY if you said you know nothing (in Q.47) about the occupation you named in Q.46.

Q.60 If you wanted to get information about the occupation you named in Q.46, to which THREE sources of the 37 listed below would you be MOST likely to go?

Circle only THREE numbers; please consider BOTH columns.

Sources of Information

People at school

1 Teachers
2 Counselors
3 Principal or Assistant Principal
4 Librarian
5 Friends
6 Someone else at school

People outside of school

7 Parents or other relatives
8 Friends outside of school
9 Someone in the line of work of interest to you
10 Employment service representative
11 Someone else outside of school

Materials at school

12 Books, magazines, pamphlets, reports
13 Films, tapes, cassettes
14 Microfiche
15 Computer
16 Other materials at school

Places to get information outside of school

17 Public library
18 District or regional career center
19 State employment office
20 Other place outside of school

Activities arranged by school

21 Career days or assembly programs
22 Career clubs
23 Classes in career planning
24 Job shadowing (observing a worker)
25 Visits to places where people work
26 Work-study or internship programs
27 Volunteer work arranged by school
28 Meeting with people who used to be students at your school
29 Meeting with other workers or employers
30 Other activities arranged by school

Activities outside of school

31 Work
32 Watching people at their work
33 Watching T V
34 Movies
35 Clubs (for example, 4H, Future Farmers, Explorer Scouts)
36 General reading or reading for fun
37 Other activities outside of school

Thank you for answering this questionnaire.

When you have finished answering all the questions that apply to you, please seal the questionnaire in the envelope it came in, and return it to the person in charge of the survey at your school.

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Appendix C

Relationship of School Instrument Items to RFP Questions*

Q. No.	Question Description	a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	1	4	1	2	3	4	1	2	3	
		What Available/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements to Use	Types of Schools By Management	Frequency By Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
A1	enrollment by grade level			X			X								
A2	enrollment by curricula			X			X								
A3	racial composition of student body			X			X								
A4	urban/suburban/ rural students			X			X								
A5	education/ employment 1978 graduates			X			X								
A6	percentage of dropouts			X			X								
A7	full-time equivalent counselors	X		X			X								
A8	head of career guidance	X		X			X								

*From: Barbara Phillips, Career Information Systems in Secondary Schools: Final Report. Princeton, New Jersey: Mathematica Policy Research, Inc., 1980.

		a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	3	4	1	2	3	4	1	2	3	
Q. No.	Question Description	What Available/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements to Use	Types of Schools By Management	Frequency By Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
B1	position of respondent			X	X		X								
B2	professional time with students			X	X		X								
B3	responsibility for management tasks			X	X		X								
B4	responsibility for helping students	X		X	X		X								
B5	effectiveness of method to interest students						X			X					
B6	membership of review committee			X	X		X								
B7	system for cataloguing						X								
B8	central index						X								
B9	funds for occupational information	X		X			X								
B10	guides for ordering materials						X								

		a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	1	4	1	2	3	4	1	2	3	
Q. No.	Question Description	What Available/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements to Use	Types of Schools By Management	Frequency By Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
B11	inventory of resources	X		X			X								
B12	resources for various questions	X													
B13	resources for various purposes	X								X					
B14	most valuable resources		X												
B15	resources would add	X													
B16	skip--published resources														X
B17	copies of OOH	X	X	X			X								
B18	review of publications		X	X			X								
B19	skip--computer														X
B20	ever have computer	X		X			X								
B21	student/staff use of terminal				X	X	X								

		a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	3	4	1	2	3	4	1	2	3	
Q. No.	Question Description	What Available/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements in Use	Types of Schools By Management	Frequency By Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
B22	date of wage information, computer		X	X											
B23	skip--terminal					X	X								X
B24	number of terminals	X		X			X								
B25	availability/ use of terminals					X	X	X	X						
B26	scheduling terminals				X	X	X								
B27	assistance for students using computer				X	X	X								
B28	skip--A-V, microfiche, sorting, materials														X
B29	review of A-V, microfiche, sorting materials		X	X			X								
B30	occupations covered, A-V, microfiche, sorting materials	X	X	X			X								

		a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	3	4	1	2	3	4	1	2	3	
Q. No.	Question Description	What Available/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements to Use	Types of Schools By Management	Frequency By Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
B31	scheduling A-V, microfiche, sorting materials				X	X	X								
B32	number, filmstrip viewers	X		X			X								
B33	availability/ use filmstrip viewers					X	X	X	X						
B34	number micro-fiche readers	X		X			X								
B35	availability/ use microfiche readers					X	X	X	X						
B36	date of wage information, microfiche		X	X											
B37	number, needlesorts	X		X			X								
B38	availability/ use needlesorts					X	X	X	X						
B39	skip--school arranged experiences														X
B40	experiences, required available	X		X		X	X								

		a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	3	4	1	2	3	4	1	2	3	
Q. No.	Question Description	What Available/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements to Use	Types of Schools By Management	Frequency By Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
B41	experiences, grade levels offered	X		X		X	X								
B42	experiences, student participation							X	X						
B43	extent of student participation							X	X						
B44	time spent by participating student	X		X		X	X	X	X						
B45	occupations covered, experiences	X	X	X			X								
B46	making students aware of experiences						X								
B47	follow-up for experiences	X		X			X								

Q. No.	Question Description	a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	3	4	1	2	3	4	1	2	3	
		What Available/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements to Use	Types of Schools By Management	Frequency By Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
B48	sources of local information	X		X			X								
B49	resources for handicapped	X		X			X								
B50	resources in other languages	X		X			X								
B51	use of external resource center			X			X					X	X		X
B52	auspices of external resource center						X					X			
B53	types of center resources			X								X			

Relationship of Student Instrument Items to RFP Questions

		a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	3	4	1	2	3	4	1	2	3	
Q. No.	Question Description	What Available/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements to Use	Types of Schools By Management	Frequency By Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
1	grade level								X						
2	year started at this school								X						
3	high school curriculum								X						
4	reading ability compared to classmates								X						
5	plans after high school								X						
6	student's sex								X						
7	student's race								X						

		a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	3	4	1	2	3	4	1	2	3	
Q. No.	Question Description	What Available/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements to Use	Types of Schools By Management	Frequency By Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
8	physical handicap								X						
9	kind of handicap								X						
10	published materials at school							X	X						
11	school have any published materials														X
12	finding out about published materials						X			X					
13	frequency of use, published materials							X	X						
14	ever used published materials														X
15	kind of information wanted, published materials										X				

		a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	3	4	1	2	3	4	1	2	3	
Q. No.	Question Description	What Availability/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements to Use	Types of Schools By Management	Frequency by Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
16	was information found, published materials		X								X				
17	information hard to understand, published materials		X												
18	school have computer	X						X	X						X
19	finding out about computer						X			X					
20	frequency, computer							X	X						X
21	kind of information wanted, computer										X				
22	was information found, computer		X								X				
23	information hard to understand, computer		X												
24	school have microfiche	X						X	X						X

		a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	3	4	1	2	3	4	1	2	3	
Q. No.	Question Description	What Available/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements to Use	Types of Schools By Management	Frequency By Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
25	finding out about microfiche						X			X					
26	frequency microfiche							X	X						X
27	kind of information wanted, microfiche										X				
28	was information found, microfiche		X								X				
29	information hard to understand, microfiche		X												
30	school have sorting cards	X						X	X						X
31	finding out about sorting cards						X			X					
32	frequency, sorting cards							X	X						X
33	kind of information wanted, sorting cards										X				

Q. No.	Question Description	a Types and Quality of Resources 1 What Available/ What Information Contained	 2 Quality of Information	 3 Resources by Types of Schools	b Management and Access 2 Respon-sibilities of Staff	 3 Arrangements to Use	 4 Types of Schools By Management	c Use 1 Frequency By Type of Resource	 2 Frequency By Type of Student	 3 Motivation/ Purpose of Use	 4 Kind of Information Sought/ Obtained	d Use of Additional Resources 1 Resources Used Beyond School	 2 Frequency of Use	 3 Quality As Compared To School Resources	Required for Skip Pattern
34	was information found, sorting cards		X								X				
35	information hard to understand, sorting cards		X												
36	frequency, experiences	X						X	X						
37	finding out about experiences						X			X					
38	kind of information wanted, experiences										X				
39	reasons for looking for information									X					
40	talk with counselor	X						X	X	X	X				
41	talks with various people	X						X	X			X	X		
42	frequency visits to various places	X	X									X	X		

		a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	3	4	1	2	3	4	1	2	3	
Q. No.	Question Description	What Available/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements to Use	Types of Schools By Management	Frequency By Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
43	all information needed is available at school	X	X												
44	sure of occupation								X	X					
45	know what want from occupation								X	X					
46	occupation thinking of								X						
47	general knowledge of occupation		X						X					X	X
48	sources of general information	X	X					X	X			X	X	X	
49	knowledge of training		X						X		X			X	X
50	source of training knowledge	X	X					X	X	X	X	X	X	X	
51	knowledge of wages		X						X		X			X	X

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Q. No.	Question Description	a			b			c				d			
		Types and Quality of Resources			Management and Access			Use				Use of Additional Resources			
		1	2	3	2	1	4	1	2	3	4	1	2	3	
		What Available/ What Information Contained	Quality of Information	Resources by Types of Schools	Responsibilities of Staff	Arrangements to Use	Types of Schools By Management	Frequency By Type of Resource	Frequency By Type of Student	Motivation/ Purpose of Use	Kind of Information Sought/ Obtained	Resources Used Beyond School	Frequency of Use	Quality As Compared To School Resources	Required for Skip Pattern
52	source of wages knowledge	X	X					X	X	X	X	X	X	X	
53	knowledge of job security		X						X		X	X		X	X
54	source of job security knowledge	X	X					X	X	X	X	X	X	X	
55	knowledge on helping others		X						X		X			X	X
56	source of knowledge on helping others	X	X					X	X	X	X	X	X	X	
57	knowledge of activities		X						X		X			X	X
58	source of knowledge of activities	X	X					X	X	X	X	X	X	X	
59	reason for using this source for activities information		X							X				X	
60	sources would go to for information	X	X					X	X			X	X	X	

APPENDIX D

Responses to School Questionnaire

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
A1A CURRENT ENROLLMENT IN GRADE 10							
601+	121	22.41	10	1.50	79	11.52	6.41
451 - 600	122	22.59	18	2.69	100	14.58	8.09
301 - 450	135	25.00	38	5.69	174	25.36	13.42
51 - 300	129	23.89	356	53.29	284	41.40	47.00
1 - 50	23	4.26	243	36.38	41	5.98	24.18
0	0	0.0	0	0.0	0	0.0	0.0
NOT APPLICABLE	10	1.85	3	0.45	8	1.17	0.79
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	0	0.0	0	0.0	0	0.0	0.0
A1B CURRENT ENROLLMENT IN GRADE 11							
601+	79	14.63	3	0.45	65	9.48	4.47
451 - 600	99	18.33	23	3.44	99	14.43	8.12
301 - 450	166	30.74	35	5.24	170	24.78	13.48
51 - 300	168	31.11	364	54.49	311	45.34	49.57
1 - 50	20	3.70	241	36.08	37	5.39	23.77
0	0	0.0	0	0.0	0	0.0	0.0
NOT APPLICABLE	8	1.48	2	0.30	4	0.58	0.49
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	0	0.0	0	0.0	0	0.0	0.0
A1C CURRENT ENROLLMENT IN GRADE 12							
601+	47	8.70	4	0.60	43	6.27	3.05
451 - 600	82	15.19	10	1.50	90	13.12	6.27
301 - 450	158	29.26	32	4.79	174	25.36	13.26
51 - 300	216	40.00	376	56.29	334	48.69	52.46
1 - 50	26	4.81	245	36.68	41	5.98	24.41
0	0	0.0	0	0.0	0	0.0	0.0
NOT APPLICABLE	11	2.04	1	0.15	4	0.58	0.45
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	0	0.0	0	0.0	0	0.0	0.0

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
A2A PERCENTAGE OF 10TH, 11TH, 12TH GRADERS IN GENERAL CURRICULUM							
81+ %	27	5.00	46	6.89	15	2.19	5.27
61 - 80 %	44	8.15	58	8.68	30	4.37	7.30
41 - 60 %	150	27.78	175	26.20	129	18.80	24.04
21 - 40 %	139	25.74	235	35.18	221	32.22	33.40
1 - 20 %	81	15.00	100	14.97	202	29.45	19.40
0 %	72	13.33	34	5.09	53	7.73	6.62
NOT APPLICABLE	1	0.19	0	0.0	5	0.73	0.24
DON'T KNOW	0	0.0	0	0.0	1	0.15	0.04
NO RESPONSE	26	4.81	20	2.99	30	4.37	3.57
A2B PERCENTAGE OF 10TH, 11TH, 12TH GRADERS IN ACADEMIC CURRICULUM							
81+ %	17	3.15	4	0.60	26	3.79	1.80
61 - 80 %	43	7.96	27	4.04	93	13.56	7.30
41 - 60 %	100	18.52	115	17.22	172	25.07	19.73
21 - 40 %	191	35.37	309	46.26	244	35.57	41.97
1 - 20 %	105	19.44	145	21.71	73	10.64	18.09
0 %	56	10.37	50	7.49	46	6.71	7.49
NOT APPLICABLE	3	0.56	0	0.0	3	0.44	0.18
DON'T KNOW	0	0.0	0	0.0	1	0.15	0.04
NO RESPONSE	25	4.63	18	2.69	28	4.08	3.29
A2C PERCENTAGE OF 10TH, 11TH, 12TH GRADERS IN VOC/TECH CURRICULUM							
81+ %	36	6.67	13	1.95	31	4.52	3.15
61 - 80 %	9	1.67	13	1.95	6	0.87	1.59
41 - 60 %	32	5.93	69	10.33	39	5.69	8.51
21 - 40 %	164	30.37	281	42.07	215	31.34	37.70
1 - 20 %	220	40.74	203	30.39	318	46.36	36.17
0 %	56	10.37	70	10.48	47	6.85	9.35
NOT APPLICABLE	1	0.19	0	0.0	3	0.44	0.15
DON'T KNOW	0	0.0	0	0.0	1	0.15	0.04
NO RESPONSE	22	4.07	19	2.84	26	3.79	3.24

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
A2D PERCENTAGE OF 10TH, 11TH, 12TH GRADERS IN OTHER CURRICULUM							
81+ %	5	0.93	0	0.0	5	0.73	0.31
61 - 80 %	0	0.0	1	0.15	0	0.0	0.09
41 - 60 %	0	0.0	2	0.30	1	0.15	0.23
21 - 40 %	12	2.22	12	1.80	22	3.21	2.27
1 - 20 %	49	9.07	54	8.08	70	10.20	8.81
0 %	426	78.89	556	83.23	531	77.41	80.98
NOT APPLICABLE	2	0.37	0	0.0	2	0.29	0.12
DON'T KNOW	0	0.0	0	0.0	1	0.15	0.04
NO RESPONSE	46	8.52	43	6.44	54	7.87	7.05
A3A PERCENTAGE OF STUDENTS THAT ARE AMER. INDIAN OR ALASKAN NATIVE							
81+ %	0	0.0	9	1.35	2	0.29	0.90
61 - 80 %	1	0.19	1	0.15	0	0.0	0.11
41 - 60 %	0	0.0	2	0.30	0	0.0	0.18
21 - 40 %	0	0.0	8	1.20	3	0.44	0.86
1 - 20 %	119	22.04	144	21.56	172	25.07	22.66
0 %	398	73.70	488	73.05	477	69.53	71.96
NOT APPLICABLE	2	0.37	0	0.0	1	0.15	0.08
DON'T KNOW	0	0.0	1	0.15	0	0.0	0.09
NO RESPONSE	20	3.70	15	2.25	31	4.52	3.07
A3B PERCENTAGE OF STUDENTS THAT ARE ASIAN OR PACIFIC ISLANDER							
81+ %	0	0.0	0	0.0	1	0.15	0.04
61 - 80 %	1	0.19	0	0.0	2	0.29	0.11
41 - 60 %	1	0.19	0	0.0	1	0.15	0.06
21 - 40 %	6	1.11	0	0.0	4	0.58	0.28
1 - 20 %	225	41.67	116	17.37	311	45.34	28.07
0 %	291	53.89	539	80.69	349	50.87	69.10
NOT APPLICABLE	1	0.19	0	0.0	0	0.0	0.02
DON'T KNOW	0	0.0	1	0.15	0	0.0	0.09
NO RESPONSE	15	2.78	12	1.80	18	2.62	2.14

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
A3C PERCENTAGE OF STUDENTS THAT ARE BLACK							
81+ %	88	16.30	12	1.80	9	1.31	2.92
61 - 80 %	41	7.59	16	2.40	5	0.73	2.34
41 - 60 %	83	15.37	26	3.89	8	1.17	4.06
21 - 40 %	121	22.41	44	6.59	41	5.98	7.79
1 - 20 %	182	33.70	192	28.74	396	57.73	38.05
0 %	24	4.44	369	55.24	219	31.92	43.56
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	1	0.19	9	1.35	8	1.17	1.19
A3D PERCENTAGE OF STUDENTS THAT ARE HISPANIC							
81+ %	15	2.78	4	0.60	2	0.29	0.70
61 - 80 %	9	1.67	5	0.75	5	0.73	0.82
41 - 60 %	18	3.33	7	1.05	8	1.17	1.28
21 - 40 %	42	7.78	9	1.35	23	3.35	2.53
1 - 20 %	227	42.04	165	24.70	368	53.64	35.09
0 %	211	39.07	461	69.01	265	38.63	56.98
NOT APPLICABLE	1	0.19	0	0.0	0	0.0	0.02
DON'T KNOW	0	0.0	1	0.15	0	0.0	0.09
NO RESPONSE	17	3.15	16	2.40	15	2.19	2.40
A3E PERCENTAGE OF STUDENTS THAT ARE WHITE							
81+ %	100	18.52	509	76.20	540	78.72	71.82
61 - 80 %	133	24.63	66	9.88	82	11.95	11.80
41 - 60 %	98	18.15	32	4.79	26	3.79	5.65
21 - 40 %	73	13.52	31	4.64	16	2.33	4.71
1 - 20 %	95	17.59	22	3.29	17	2.48	4.30
0 %	39	7.22	6	0.90	4	0.58	1.36
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	2	0.37	2	0.30	1	0.15	0.26

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
A4A PERCENTAGE OF STUDENTS THAT LIVE IN AN URBAN COMMUNITY							
81+ %	350	64.81	15	2.25	82	11.95	10.73
61 - 80 %	31	5.74	19	2.84	17	2.48	2.98
41 - 60 %	29	5.37	29	4.34	14	2.04	3.72
21 - 40 %	21	3.89	28	4.19	27	3.94	4.08
1 - 20 %	27	5.00	43	6.44	47	6.85	6.43
0 %	81	15.00	532	79.64	499	72.74	71.75
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	1	0.19	2	0.30	0	0.0	0.20
A4B PERCENTAGE OF STUDENTS THAT LIVE IN A SUBURBAN COMMUNITY							
81+ %	65	12.04	19	2.84	319	46.50	17.05
61 - 80 %	26	4.81	16	2.40	54	7.87	4.29
41 - 60 %	34	6.30	18	2.69	39	5.69	3.93
21 - 40 %	32	5.93	33	4.94	45	6.56	5.52
1 - 20 %	53	9.81	47	7.04	33	4.81	6.59
0 %	328	60.74	533	79.79	195	28.43	62.27
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	2	0.37	2	0.30	1	0.15	0.26
A4C PERCENTAGE OF STUDENTS THAT LIVE IN A RURAL COMMUNITY							
81+ %	7	1.30	481	72.01	119	17.35	48.93
61 - 80 %	6	1.11	41	6.14	24	3.50	4.88
41 - 60 %	9	1.67	50	7.49	33	4.81	6.14
21 - 40 %	22	4.07	36	5.39	42	6.12	5.49
1 - 20 %	90	16.67	36	5.39	132	19.24	10.63
0 %	404	74.81	24	3.59	335	48.83	23.75
NOT APPLICABLE	1	0.19	0	0.0	0	0.0	0.02
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	1	0.19	0	0.0	1	0.15	0.06

(CONTINUED)

ALL SCHOOLS

ITEMS AND ALTERNATIVES	STRATUM1 FREQ	STRATUM1 PERCENT	STRATUM2 FREQ	STRATUM2 PERCENT	STRATUM3 FREQ	STRATUM3 PERCENT	NATL EST PERCENT
NUMBER OF OBSERVATIONS	540		668		686		
A5A % OF '79 GRADUATING CLASS ENROLLED IN 2-4 YEAR COLLEGE							
81+ %	11	2.04	4	0.60	22	3.21	1.53
61 - 80 %	48	8.89	29	4.34	102	14.87	7.97
41 - 60 %	138	25.56	130	19.46	190	27.70	22.51
21 - 40 %	149	27.59	296	44.31	187	27.26	37.56
1 - 20 %	87	16.11	138	20.66	92	13.41	18.01
0 %	9	1.67	4	0.60	2	0.29	0.60
INFORMATION NOT AVAILABLE	56	10.37	34	5.09	55	8.02	6.45
DON'T KNOW	1	0.19	0	0.0	0	0.0	0.02
NO RESPONSE	41	7.59	33	4.94	36	5.25	5.26
A5B % OF '79 GRADUATING CLASS ENROLLED IN OTHER POST-SECONDARY SCHOOL							
81+ %	0	0.0	0	0.0	0	0.0	0.0
61 - 80 %	2	0.37	0	0.0	0	0.0	0.03
41 - 60 %	1	0.19	7	1.05	2	0.29	0.74
21 - 40 %	34	6.30	85	12.72	32	4.66	9.67
1 - 20 %	352	65.19	433	64.82	514	74.93	67.89
0 %	8	1.48	21	3.14	5	0.73	2.25
INFORMATION NOT AVAILABLE	79	14.63	48	7.19	76	11.08	9.03
DON'T KNOW	1	0.19	0	0.0	0	0.0	0.02
NO RESPONSE	63	11.67	74	11.08	57	8.31	10.27
A5C % OF '79 GRADUATING CLASS IN APPRENTICE OR WORK TRAINING PROGRAM							
81+ %	0	0.0	0	0.0	0	0.0	0.0
61 - 80 %	1	0.19	0	0.0	1	0.15	0.06
41 - 60 %	0	0.0	0	0.0	0	0.0	0.0
21 - 40 %	5	0.93	7	1.05	6	0.87	0.98
1 - 20 %	311	57.59	296	44.31	396	57.73	49.55
0 %	25	4.63	87	13.02	39	5.69	10.02
INFORMATION NOT AVAILABLE	110	20.37	100	14.97	136	19.83	16.92
DON'T KNOW	2	0.37	6	0.90	5	0.73	0.80
NO RESPONSE	86	15.93	172	25.75	103	15.01	21.56

(CONTINUED)

ALL SCHOOLS

ITEMS AND ALTERNATIVES	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
A5D % OF '79 GRADUATING CLASS IN MILITARY SERVICE							
81+ %	0	0.0	0	0.0	0	0.0	0.0
61 - 80 %	0	0.0	0	0.0	0	0.0	0.0
41 - 60 %	0	0.0	1	0.15	0	0.0	0.09
21 - 40 %	5	0.93	7	1.05	4	0.58	0.89
1 - 20 %	376	69.63	460	68.86	514	74.93	70.72
0 %	13	2.41	49	7.34	17	2.48	5.40
INFORMATION NOT AVAILABLE	92	17.04	53	7.93	93	13.56	10.45
DON'T KNOW	2	0.37	1	0.15	0	0.0	0.12
NO RESPONSE	52	9.63	97	14.52	58	8.45	12.21
A5E % OF '79 GRADUATING CLASS EMPLOYED FULL-TIME							
81+ %	4	0.74	8	1.20	10	1.46	1.24
61 - 80 %	30	5.56	31	4.64	23	3.35	4.32
41 - 60 %	73	13.52	144	21.56	101	14.72	18.73
21 - 40 %	148	27.41	224	33.53	201	29.30	31.66
1 - 20 %	126	23.33	130	19.46	178	25.95	21.77
0 %	3	0.56	3	0.45	1	0.15	0.36
INFORMATION NOT AVAILABLE	106	19.63	80	11.98	118	17.20	14.24
DON'T KNOW	2	0.37	2	0.30	2	0.29	0.30
NO RESPONSE	48	8.89	46	6.89	52	7.58	7.27
A5F % OF '79 GRADUATING CLASS UNEMPLOYED BUT SEEKING WORK							
81+ %	1	0.19	2	0.30	1	0.15	0.24
61 - 80 %	1	0.19	2	0.30	1	0.15	0.24
41 - 60 %	3	0.56	9	1.35	1	0.15	0.91
21 - 40 %	18	3.33	28	4.19	16	2.33	3.54
1 - 20 %	290	53.70	374	55.99	392	57.14	56.09
0 %	12	2.22	29	4.34	18	2.62	3.62
INFORMTION NOT AVAILABLE	134	24.81	109	16.32	159	23.18	19.15
DON'T KNOW	4	0.74	4	0.60	2	0.29	0.52
NO RESPONSE	77	14.26	111	16.62	96	13.99	15.59
A6 % WHO ENTER 10TH GRADE WHO DROP OUT BEFORE GRADUATION							
0 - 14 %	297	55.00	554	82.93	559	81.49	79.95
15 - 29 %	160	29.63	81	12.13	85	12.39	13.74
30 - 49 %	40	7.41	11	1.65	8	1.17	2.00
50% OR MORE	13	2.41	2	0.30	4	0.58	0.57
SCHOOL HAS NO 10TH GRADE	7	1.30	3	0.45	5	0.73	0.61
DON'T KNOW	12	2.22	3	0.45	8	1.17	0.82
NO RESPONSE	11	2.04	14	2.10	17	2.48	2.21

(CONTINUED)

ALL SCHOOLS

	ITEMS AND ALTERNATIVES	STRATUM1		STRATUM2		STRATUM3		NATL EST
	NUMBER OF OBSERVATIONS	540		668		686		
		FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
A7	NUMBER FULL-TIME EQUIV.PROF.GUID.COUNSELORS EMPLOYED AT SCHOOL							
	7.01+	48	8.89	2	0.30	40	5.83	2.75
	6.01 - 7.00	32	5.93	2	0.30	27	3.94	1.91
	5.01 - 6.00	51	9.44	4	0.60	71	10.35	4.37
	4.01 - 5.00	92	17.04	14	2.10	91	13.27	6.84
	3.01 - 4.00	98	18.15	28	4.19	113	16.47	9.19
	2.01 - 3.00	84	15.56	59	8.83	124	18.08	12.25
	1.01 - 2.00	77	14.26	144	21.56	101	14.72	18.80
	.01 - 1.00	48	8.89	360	53.89	107	15.60	38.12
	0.00	9	1.67	55	8.23	12	1.75	5.66
	NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	1	0.19	0	0.0	0	0.0	0.02
A8	DOES SOMEONE SERVE AS DIRECTOR OR HEAD OF CAREER GUIDANCE ?							
	YES	336	62.22	427	63.92	425	61.95	63.10
	NO	199	36.85	230	34.43	245	35.71	35.00
	NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	5	0.93	11	1.65	16	2.33	1.79
1	WHICH OF THE FOLLOWING BEST DESCRIBES YOUR POSITION?							
	DIRECTOR OF GUIDANCE	119	22.04	138	20.66	178	25.95	22.38
	COORDINATOR OF CAREER EDUCATION	80	14.81	36	5.39	92	13.41	8.68
	GUIDANCE COUNSELOR	189	35.00	363	54.34	241	35.13	46.69
	CAREER EDUCATION SPECIALIST	43	7.96	13	1.95	58	8.45	4.47
	PRINCIPAL OR ASSISTANT PRINCIPAL	67	12.41	100	14.97	72	10.50	13.36
	VOC. ED. TEACHER	5	0.93	9	1.35	7	1.02	1.21
	NON VOC. ED. TEACHER	3	0.56	10	1.50	2	0.29	1.04
	LIBRARIAN	6	1.11	9	1.35	7	1.02	1.22
	OTHER	57	10.56	39	5.84	64	9.33	7.32
	NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	1	0.19	0	0.0	0	0.0	0.02
2A	EFFECTIVENESS-COUNSELOR REFERRALS IN GETTING STUDENTS TO USE OCC INFO							
	VERY EFFECTIVE	286	52.96	295	44.16	344	50.15	46.73
	SOMEWHAT EFFECTIVE	218	40.37	316	47.31	314	45.77	46.18
	NOT EFFECTIVE	8	1.48	8	1.20	11	1.60	1.35
	METHOD NOT USED	9	1.67	39	5.84	10	1.46	4.12
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	19	3.52	10	1.50	7	1.02	1.53

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
2B EFFECTIVENESS-TEACHER REFERRALS IN GETTING STUDENTS TO USE OCC. INFO.							
VERY EFFECTIVE	172	31.85	199	29.79	197	28.72	29.61
SOMEWHAT EFFECTIVE	314	58.15	405	60.63	411	59.91	60.13
NOT EFFECTIVE	26	4.81	31	4.64	54	7.87	5.64
METHOD NOT USED	11	2.04	22	3.29	14	2.04	2.80
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	17	3.15	11	1.65	10	1.46	1.72
2C EFFECTIVENESS-BULLETIN DISPLAYS IN GETTING STUDENTS TO USE OCC INFO.							
VERY EFFECTIVE	51	9.44	37	5.54	31	4.52	5.56
SOMEWHAT EFFECTIVE	335	62.04	403	60.33	393	57.29	59.49
NOT EFFECTIVE	105	19.44	174	26.05	208	30.32	26.75
METHOD NOT USED	31	5.74	40	5.99	42	6.12	6.00
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	18	3.33	14	2.10	12	1.75	2.10
2D EFFECTIVENESS-SCHOOL PAPER NOTICES IN GETTING STUDENTS TO USE OCC INFO							
VERY EFFECTIVE	30	5.56	15	2.25	32	4.66	3.28
SOMEWHAT EFFECTIVE	234	43.33	247	36.98	265	38.63	38.01
NOT EFFECTIVE	95	17.59	137	20.51	163	23.76	21.23
METHOD NOT USED	161	29.81	247	36.98	213	31.05	34.49
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	20	3.70	22	3.29	13	1.90	2.90
2E EFFECTIVENESS-CLASS ANNOUNCEMENTS IN GETTING STUDENTS TO USE OCC INFO							
VERY EFFECTIVE	114	21.11	102	15.27	88	12.83	15.02
SOMEWHAT EFFECTIVE	311	57.59	392	58.68	429	62.54	59.71
NOT EFFECTIVE	57	10.56	101	15.12	93	13.56	14.22
METHOD NOT USED	44	8.15	60	8.98	66	9.62	9.10
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	14	2.59	13	1.95	10	1.46	1.85
2F EFFECTIVENESS-GROUP VISITS IN GETTING STUDENTS TO USE OCC INFO							
VERY EFFECTIVE	304	56.30	278	41.62	327	47.67	44.72
SOMEWHAT EFFECTIVE	185	34.26	328	49.10	299	43.59	46.05
NOT EFFECTIVE	7	1.30	17	2.54	16	2.33	2.37
METHOD NOT USED	31	5.74	34	5.09	38	5.54	5.28
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	13	2.41	11	1.65	6	0.87	1.47

(CONTINUED)

ALL SCHOOLS

		STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS		540		668		686		
	ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
2G	EFFECTIVENESS-OTHER METHODS IN GETTING STUDENTS TO USE OCC INFO							
	VERY EFFECTIVE	88	16.30	78	11.68	151	22.01	15.24
	SOMEWHAT EFFECTIVE	25	4.63	29	4.34	36	5.25	4.64
	NOT EFFECTIVE	0	0.0	1	0.15	3	0.44	0.22
	METHOD NOT USED	39	7.22	45	6.74	47	6.85	6.81
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	388	71.85	515	77.10	449	65.45	72.98
3A	PERSON RESPONSIBLE FOR PLANNING MAJOR EXPENDITURES RELATED TO OCC INFO							
	PRINCIPAL OR ASSISTANT PRINCIPAL	201	37.22	242	36.23	210	30.61	34.55
	TEACHER	18	3.33	22	3.29	14	2.04	2.91
	GUIDANCE	145	26.85	230	34.43	269	39.21	35.20
	CAREER EDUCATION	82	15.19	46	6.89	119	17.35	10.82
	LIBRARIAN	30	5.56	28	4.19	26	3.79	4.18
	STATE, REGIONAL, OR DISTRICT STAFF	47	8.70	14	2.10	18	2.62	2.84
	OTHER	16	2.96	49	7.34	20	2.92	5.59
	TASK NOT PERFORMED	22	4.07	38	5.69	18	2.62	4.60
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	12	2.22	8	1.20	12	1.75	1.46
3B	PERSON RESPONSIBLE FOR EVALUATING NEW/REPLACEMENT OCC MATERIALS							
	PRINCIPAL OR ASSISTANT PRINCIPAL	71	13.15	93	13.92	56	8.16	12.07
	TEACHER	50	9.26	79	11.83	47	6.85	10.06
	GUIDANCE	223	41.30	350	52.40	353	51.46	51.08
	CAREER EDUCATION	120	22.22	71	10.63	161	23.47	15.58
	LIBRARIAN	42	7.78	45	6.74	43	6.27	6.68
	STATE, REGIONAL, OR DISTRICT STAFF	26	4.81	6	0.90	8	1.17	1.32
	OTHER	15	2.78	16	2.40	19	2.77	2.54
	TASK NOT PERFORMED	19	3.52	17	2.54	14	2.04	2.47
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	11	2.04	7	1.05	11	1.60	1.30

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
3C PERSON RESPONSIBLE FOR HELPING STUDENTS LOCATE SPECIFIC OCC INFO							
PRINCIPAL OR ASSISTANT PRINCIPAL	2	0.37	26	3.89	5	0.73	2.61
TEACHER	51	9.44	45	6.74	43	6.27	6.82
GUIDANCE	286	52.96	461	69.01	401	58.45	64.29
CAREER EDUCATION	142	26.30	57	8.53	171	24.93	15.12
LIBRARIAN	74	13.70	89	13.32	78	11.37	12.74
STATE, REGIONAL, OR DISTRICT STAFF	3	0.56	1	0.15	1	0.15	0.18
OTHER	24	4.44	13	1.95	28	4.08	2.82
TASK NOT PERFORMED	1	0.19	3	0.45	0	0.0	0.29
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	9	1.67	8	1.20	8	1.17	1.23
3D PERSON RESPONSIBLE FOR ARRANGING SPECIAL PROGRAMS,EVENTS,OR DAYS							
PRINCIPAL OR ASSISTANT PRINCIPAL	60	11.11	124	18.56	53	7.73	14.56
TEACHER	37	6.85	39	5.84	44	6.41	6.10
GUIDANCE	271	50.19	417	62.43	384	55.98	59.31
CAREER EDUCATION	151	27.96	62	9.28	175	25.51	15.90
LIBRARIAN	1	0.19	3	0.45	4	0.58	0.47
STATE, REGIONAL, OR DISTRICT STAFF	4	0.74	2	0.30	3	0.44	0.38
OTHER	20	3.70	12	1.80	27	3.94	2.62
TASK NOT PERFORMED	10	1.85	17	2.54	16	2.33	2.42
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	14	2.59	10	1.50	13	1.90	1.71
3E PERSON RESPONSIBLE FOR SUPERVISING EXPLORATORY WORK-EXPERIENCE PROG.							
PRINCIPAL OR ASSISTANT PRINCIPAL	18	3.33	59	8.83	28	4.08	6.88
TEACHER	161	29.81	152	22.75	196	28.57	25.14
GUIDANCE	120	22.22	168	25.15	134	19.53	23.14
CAREER EDUCATION	124	22.96	71	10.63	130	18.95	14.26
LIBRARIAN	1	0.19	2	0.30	0	0.0	0.20
STATE, REGIONAL, OR DISTRICT STAFF	9	1.67	15	2.25	17	2.48	2.26
OTHER	64	11.85	37	5.54	86	12.54	8.24
TASK NOT PERFORMED	50	9.26	166	24.85	94	13.70	20.03
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	11	2.04	11	1.65	14	2.04	1.80

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
3F PERSON RESPONSIBLE FOR MAKING AVAILABLE JOB INFO OF FORMER STUDENTS							
PRINCIPAL OR ASSISTANT PRINCIPAL	13	2.41	36	5.39	8	1.17	3.82
TEACHER	49	9.07	32	4.79	46	6.71	5.75
GUIDANCE	149	27.59	243	36.38	196	28.57	33.17
CAREER EDUCATION	86	15.93	45	6.74	81	11.81	9.10
LIBRARIAN	1	0.19	4	0.60	0	0.0	0.38
STATE, REGIONAL, OR DISTRICT STAFF	13	2.41	5	0.75	11	1.60	1.16
OTHER	23	4.26	17	2.54	32	4.66	3.34
TASK NOT PERFORMED	199	36.85	283	42.37	310	45.19	42.70
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	14	2.59	10	1.50	11	1.60	1.62
3G PERSON RESPONSIBLE FOR DECIDING TO DISCARD OLD OCC INFO MATERIALS							
PRINCIPAL OR ASSISTANT PRINCIPAL	39	7.22	78	11.68	37	5.39	9.34
TEACHER	40	7.41	48	7.19	35	5.10	6.56
GUIDANCE	253	46.85	401	60.03	374	54.52	57.12
CAREER EDUCATION	124	22.96	56	8.38	167	24.34	14.56
LIBRARIAN	61	11.30	67	10.03	61	8.89	9.78
STATE, REGIONAL, OR DISTRICT STAFF	9	1.67	2	0.30	3	0.44	0.46
OTHER	21	3.89	15	2.25	18	2.62	2.50
TASK NOT PERFORMED	15	2.78	14	2.10	15	2.19	2.18
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	13	2.41	9	1.35	9	1.31	1.43
3H PERSON RESPONSIBLE FOR MAINTAINING INDEX OF OCC INFO MATERIALS							
PRINCIPAL OR ASSISTANT PRINCIPAL	4	0.74	15	2.25	6	0.87	1.69
TEACHER	15	2.78	17	2.54	16	2.33	2.50
GUIDANCE	255	47.22	397	59.43	323	47.08	54.51
CAREER EDUCATION	131	24.26	57	8.53	166	24.20	14.72
LIBRARIAN	101	18.70	135	20.21	122	17.78	19.31
STATE, REGIONAL, OR DISTRICT STAFF	4	0.74	2	0.30	3	0.44	0.38
OTHER	19	3.52	18	2.69	34	4.96	3.46
TASK NOT PERFORMED	29	5.37	37	5.54	34	4.96	5.34
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	10	1.85	8	1.20	8	1.17	1.24

(CONTINUED)

ALL SCHOOLS

		STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS		540		668		686		
ITEMS AND ALTERNATIVES		FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
3I	PERSON RESPONSIBLE FOR EXTERNAL AGENCY SOURCES OF OCC INFO MATERIALS							
	PRINCIPAL OR ASSISTANT PRINCIPAL	21	3.89	54	8.08	17	2.48	5.99
	TEACHER	31	5.74	32	4.79	40	5.83	5.19
	GUIDANCE	288	53.33	460	68.86	375	54.66	63.07
	CAREER EDUCATION	170	31.48	76	11.38	186	27.11	17.97
	LIBRARIAN	6	1.11	11	1.65	9	1.31	1.50
	STATE, REGIONAL, OR DISTRICT STAFF	5	0.93	3	0.45	13	1.90	0.93
	OTHER	16	2.96	12	1.80	40	5.83	3.14
	TASK NOT PERFORMED	27	5.00	32	4.79	32	4.66	4.77
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	9	1.67	9	1.35	8	1.17	1.32
4A	TO WHAT EXTENT DO PROF.GUID.COUNS.DIRECT STUDENTS TO GENERAL OCC INFO							
	NOT AT ALL	8	1.48	19	2.84	8	1.17	2.21
	SOMEWHAT	168	31.11	173	25.90	213	31.05	27.91
	A GREAT DEAL	346	64.07	436	65.27	447	65.16	65.07
	NOT APPLICABLE	3	0.56	22	3.29	6	0.87	2.31
	DON'T KNOW	4	0.74	7	1.05	3	0.44	0.83
	NO RESPONSE	11	2.04	11	1.65	9	1.31	1.58
4B	TO WHAT EXTENT DO PROF.GUID.COUNS.DIRECT STUDENTS TO SPECIFIC OCC INFO							
	NOT AT ALL	8	1.48	19	2.84	20	2.92	2.74
	SOMEWHAT	155	28.70	148	22.16	191	27.84	24.46
	A GREAT DEAL	358	66.30	459	68.71	455	66.33	67.70
	NOT APPLICABLE	3	0.56	22	3.29	6	0.87	2.31
	DON'T KNOW	5	0.93	8	1.20	4	0.58	0.98
	NO RESPONSE	11	2.04	12	1.80	10	1.46	1.71
4C	TO WHAT EXTENT DO PROF.GUID.COUNS.ANSWER STUDENT OCC INFO QUESTIONS							
	NOT AT ALL	6	1.11	20	2.99	13	1.90	2.49
	SOMEWHAT	142	26.30	133	19.91	176	25.66	22.22
	A GREAT DEAL	371	68.70	471	70.51	472	68.80	69.76
	NOT APPLICABLE	3	0.56	22	3.29	6	0.87	2.31
	DON'T KNOW	7	1.30	11	1.65	7	1.02	1.42
	NO RESPONSE	11	2.04	11	1.65	12	1.75	1.71

(CONTINUED)

ALL SCHOOLS

		STRATUM1		STRATUM2		STRATUM3		NATL EST
	NUMBER OF OBSERVATIONS	540		668		686		
	ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
4D	TO WHAT EXTENT DO PROF.GUID.COUNS.INTERPRET STUDENT'S OCC INFO							
	NOT AT ALL	19	3.52	28	4.19	19	2.77	3.69
	SOMEWHAT	198	36.67	227	33.98	289	42.13	36.69
	A GREAT DEAL	296	54.81	372	55.69	348	50.73	54.03
	NOT APPLICABLE	3	0.56	22	3.29	6	0.87	2.31
	DON'T KNOW	12	2.22	9	1.35	12	1.75	1.55
	NO RESPONSE	12	2.22	10	1.50	12	1.75	1.64
4E	TO WHAT EXTENT DO PROF.GUID.COUNS.ASSIST STUDENTS WITH CAREER DECISIONS							
	NOT AT ALL	10	1.85	24	3.59	6	0.87	2.60
	SOMEWHAT	178	32.96	200	29.94	233	33.97	31.41
	A GREAT DEAL	326	60.37	401	60.03	420	61.22	60.37
	NOT APPLICABLE	5	0.93	22	3.29	6	0.87	2.34
	DON'T KNOW	8	1.48	11	1.65	8	1.17	1.48
	NO RESPONSE	13	2.41	10	1.50	13	1.90	1.70
5	WHO ARE MEMBERS OF COMMITTEE TO REVIEW OCC INFO MATERIALS OR PROGRAMS							
	PRINCIPAL	53	9.81	63	9.43	53	7.73	8.93
	GUIDANCE COUNSELORS	128	23.70	123	18.41	160	23.32	20.37
	CAREER ED. STAFF	64	11.85	48	7.19	91	13.27	9.46
	STUDENTS	29	5.37	19	2.84	21	3.06	3.13
	TEACHERS	78	14.44	71	10.63	80	11.66	11.27
	LIBRARIAN	56	10.37	63	9.43	57	8.31	9.16
	LOCAL EMPLOYERS, LABOR LEADERS, COMMUNITY REPS.	33	6.11	23	3.44	42	6.12	4.50
	REGIONAL OR STATE AGENCY REPS.	18	3.33	7	1.05	16	2.33	1.64
	PARENTS	31	5.74	20	2.99	24	3.50	3.39
	OTHER	15	2.78	13	1.95	22	3.21	2.40
	WE HAVE NO COMMITTEE	359	66.48	512	76.65	477	69.53	73.49
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	9	1.67	8	1.20	8	1.17	1.23
6A	% OF PROF.TIME WITH STUDENTS INVOLVING CHOICE OF HIGH SCHOOL COURSES							
	0 - 14 %	66	12.22	199	29.79	116	16.91	24.26
	15 - 29 %	150	27.78	256	38.32	243	35.42	36.47
	30 - 49 %	153	28.33	116	17.37	206	30.03	22.20
	50 % OR MORE	147	27.22	54	8.08	91	13.27	11.35
	NOT APPLICABLE	5	0.93	19	2.84	5	0.73	2.02
	DON'T KNOW	4	0.74	10	1.50	6	0.87	1.24
	NO RESPONSE	15	2.78	14	2.10	19	2.77	2.36

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
6B % OF PROF.TIME WITH STUDENTS INVOLVING COLLEGE ADMISSION/SELECTION							
0 - 14 %	117	21.67	121	18.11	120	17.49	18.22
15 - 29 %	213	39.44	306	45.81	325	47.38	45.68
30 - 49 %	123	22.78	149	22.31	154	22.45	22.37
50 % OR MORE	63	11.67	48	7.19	52	7.58	7.69
NOT APPLICABLE	5	0.93	19	2.84	5	0.73	2.02
DON'T KNOW	3	0.56	10	1.50	9	1.31	1.36
NO RESPONSE	16	2.96	15	2.25	21	3.06	2.56
6C % OF PROF.TIME WITH STUDENTS INVOLVING OCC CHOICE/CAREER PLANNING							
0 - 14 %	126	23.33	152	22.75	184	26.82	24.03
15 - 29 %	233	43.15	295	44.16	303	44.17	44.03
30 - 49 %	96	17.78	137	20.51	134	19.53	19.95
50 % OR MORE	58	10.74	36	5.39	24	3.50	5.27
NOT APPLICABLE	5	0.93	19	2.84	6	0.87	2.07
DON'T KNOW	5	0.93	10	1.50	8	1.17	1.34
NO RESPONSE	17	3.15	19	2.84	27	3.94	3.20
6D % OF PROF.TIME WITH STUDENTS INVOLVING JOB PLACEMENT							
0 - 14 %	353	65.37	502	75.15	510	74.34	73.97
15 - 29 %	86	15.93	80	11.98	83	12.10	12.35
30 - 49 %	33	6.11	17	2.54	19	2.77	2.93
50 % OR MORE	23	4.26	2	0.30	7	1.02	0.87
NOT APPLICABLE	6	1.11	19	2.84	7	1.02	2.13
DON'T KNOW	22	4.07	26	3.89	29	4.23	4.01
NO RESPONSE	17	3.15	22	3.29	31	4.52	3.65
6E % OF PROF.TIME WITH STUDENTS INVOLVING ATTENDANCE/DISCIPLINE/ETC PROB							
0 - 14 %	136	25.19	248	37.13	180	26.24	32.70
15 - 29 %	161	29.81	211	31.59	226	32.94	31.82
30 - 49 %	129	23.89	122	18.26	171	24.93	20.79
50 % OR MORE	80	14.81	37	5.54	65	9.48	7.56
NOT APPLICABLE	5	0.93	20	2.99	7	1.02	2.20
DON'T KNOW	13	2.41	13	1.95	15	2.19	2.06
NO RESPONSE	16	2.96	17	2.54	22	3.21	2.78
7 SYSTEMS USED FOR CATALOGUING,FILING,INDEXING OCC INFO RESOURCES							
ALPHABETICAL BY OCCUPATION TITLE	387	71.67	433	64.82	504	73.47	68.01
TYPE OR LEVEL OF EDUCATION OR TRAINING	172	31.85	235	35.18	238	34.69	34.70
RELATED SCHOOL SUBJECTS	149	27.59	143	21.41	197	28.72	24.17
INTEREST FIELDS	179	33.15	215	32.19	251	36.59	33.59
TYPE OF INDUSTRY OR EMPLOYER	172	31.85	183	27.40	228	33.24	29.55

(CONTINUED)

ALL SCHOOLS

		STRATUM1		STRATUM2		STRATUM3		NATL EST
	NUMBER OF OBSERVATIONS	540		668		686		
	ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
	(ITEM CONTINUED)							
7	SYSTEMS USED FOR CATALOGUING,FILING,INDEXING OCC INFO RESOURCES							
	OTHER OWN GROUPING SYSTEM	27	5.00	34	5.09	45	6.56	5.53
	DEWEY DECIMAL SYSTEM	189	35.00	209	31.29	195	28.43	30.70
	D.O.T. NUMBERS	258	47.78	327	48.95	387	56.41	51.09
	WORK OR WORKER TRAIT GROUPS	43	7.96	54	8.08	71	10.35	8.76
	ALPHABETIZED D.O.T. SUBJECTS HEADINGS	108	20.00	102	15.27	162	23.62	18.23
	SRA JOB-FAMILY CLASSIFICATIONS	126	23.33	129	19.31	142	20.70	20.07
	VOC. INTEREST CATEGORIES	75	13.89	73	10.93	98	14.29	12.21
	U.S.O.E. CATEGORIES	48	8.89	50	7.49	86	12.54	9.15
	STANDARD INDUSTRIAL CLASSIFICATIONS	21	3.89	19	2.84	27	3.94	3.27
	U.S. CENSUS CLASSIFICATIONS	19	3.52	8	1.20	18	2.62	1.84
	OTHER PREPARED SYSTEM	31	5.74	34	5.09	44	6.41	5.55
	NONE	16	2.96	26	3.89	14	2.04	3.24
	NOT APPLICABLE	0	0.0	1	0.15	0	0.0	0.09
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	9	1.67	11	1.65	6	0.87	1.41
8	DOES SCHOOL HAVE CENTRAL INDEX TO LOCATE ALL INFO ABOUT A SPECIFIC OCC							
	YES	184	34.07	185	27.69	210	30.61	29.12
	NO	345	63.89	474	70.96	470	68.51	69.51
	NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	11	2.04	9	1.35	6	0.87	1.26
9A	AMOUNT SPENT (78-79) ON OCC INFO RESOURCES:PUBLICATIONS							
	LESS THAN $300	339	62.78	469	70.21	389	56.71	65.34
	$ 300 - $ 499	55	10.19	82	12.28	120	17.49	13.68
	$ 500 - $ 999	40	7.41	29	4.34	77	11.22	6.72
	$1000 - $2000	14	2.59	11	1.65	34	4.96	2.74
	MORE THAN $2000	9	1.67	6	0.90	13	1.90	1.27
	NOT AVAILABLE	54	10.00	52	7.78	33	4.81	7.06
	DON'T KNOW	0	0.0	1	0.15	0	0.0	0.09
	NO RESPONSE	29	5.37	18	2.69	20	2.92	3.00

(CONTINUED)

ALL SCHOOLS

		STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS		540		668		686		
	ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
9B	AMOUNT SPENT (78-79) ON OCC INFO RESOURCES:AUDIO-VISUAL							
	LESS THAN $300	247	45.74	350	52.40	338	49.27	50.80
	$ 300 - $ 499	65	12.04	92	13.77	106	15.45	14.12
	$ 500 - $ 999	63	11.67	47	7.04	73	10.64	8.54
	$1000 - $2000	19	3.52	26	3.89	31	4.52	4.05
	MORE THAN $2000	21	3.89	12	1.80	20	2.92	2.32
	NOT AVAILABLE	77	14.26	99	14.82	72	10.50	13.43
	DON'T KNOW	0	0.0	1	0.15	0	0.0	0.09
	NO RESPONSE	48	8.89	41	6.14	46	6.71	6.55
9C	AMOUNT SPENT (78-79) ON OCC INFO RESOURCES:MICROFICHE							
	LESS THAN $300	190	35.19	289	43.26	302	44.02	42.74
	$ 300 - $ 499	29	5.37	29	4.34	37	5.39	4.75
	$ 500 - $ 999	14	2.59	12	1.80	17	2.48	2.07
	$1000 - $2000	9	1.67	1	0.15	3	0.44	0.37
	MORE THAN $2000	1	0.19	1	0.15	4	0.58	0.29
	NOT AVAILABLE	206	38.15	272	40.72	236	34.40	38.51
	DON'T KNOW	0	0.0	1	0.15	0	0.0	0.09
	NO RESPONSE	91	16.85	63	9.43	87	12.68	11.07
9D	AMOUNT SPENT (78-79) ON OCC INFO RESOURCES:COMPUTERIZED INFO SYSTEM							
	LESS THAN $300	122	22.59	178	26.65	168	24.49	25.60
	$ 300 - $ 499	11	2.04	17	2.54	29	4.23	3.01
	$ 500 - $ 999	14	2.59	12	1.80	23	3.35	2.34
	$1000 - $2000	19	3.52	30	4.49	54	7.87	5.44
	MORE THAN $2000	30	5.56	12	1.80	67	9.77	4.57
	NOT AVAILABLE	257	47.59	355	53.14	266	38.78	48.19
	DON'T KNOW	2	0.37	1	0.15	0	0.0	0.12
	NO RESPONSE	85	15.74	63	9.43	79	11.52	10.62
9E	AMOUNT SPENT (78-79) ON OCC INFO RESOURCES:SORTING MATERIALS							
	LESS THAN $300	138	25.56	221	33.08	218	31.78	31.99
	$ 300 - $ 499	8	1.48	19	2.84	15	2.19	2.52
	$ 500 - $ 999	3	0.56	5	0.75	7	1.02	0.81
	$1000 - $2000	1	0.19	1	0.15	1	0.15	0.15
	MORE THAN $2000	0	0.0	0	0.0	2	0.29	0.09
	NOT AVAILABLE	284	52.59	344	51.50	330	48.10	50.50
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	106	19.63	78	11.68	113	16.47	13.84

(CONTINUED)

ALL SCHOOLS

		STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS		540		668		686		
ITEMS AND ALTERNATIVES		FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
9F	AMOUNT SPENT (78-79) ON OTHER OCC INFO RESOURCES							
	LESS THAN $300	17	3.15	21	3.14	31	4.52	3.56
	$ 300 - $ 499	2	0.37	2	0.30	8	1.17	0.57
	$ 500 - $ 999	3	0.56	2	0.30	7	1.02	0.54
	$1000 - $2000	3	0.56	2	0.30	3	0.44	0.36
	MORE THAN $2000	3	0.56	1	0.15	4	0.58	0.32
	NOT AVAILABLE	79	14.63	84	12.57	62	9.04	11.66
	DON'T KNOW	0	0.0	0	0.0	1	0.15	0.04
	NO RESPONSE	433	80.19	556	83.23	570	83.09	82.84
10	GUIDES/INDEXES AVAILABLE AT SCHOOL TO ORDER/SELECT GUIDANCE MATERIALS							
	CAREER GUIDANCE INDEX	247	45.74	291	43.56	352	51.31	46.09
	CAREER INDEX	265	49.07	308	46.11	427	62.24	51.28
	COUNSELOR'S INFORMATION SERVICE	74	13.70	70	10.48	109	15.89	12.41
	CURRENT CAREER AND OCCCUPATIONAL LIT.	58	10.74	44	6.59	52	7.58	7.25
	EDUCATOR'S GUIDE TO FREE GUIDANCE MATERIALS	253	46.85	332	49.70	357	52.04	50.12
	GUIDANCE EXCHANGE	12	2.22	11	1.65	16	2.33	1.91
	GUIDE TO INDEXES AS A RESOURCE	31	5.74	33	4.94	38	5.54	5.19
	GUIDE TO LOCAL OCCUPATIONAL INFO	162	30.00	170	25.45	224	32.65	28.04
	INDEX TO VOC/TECH EDUC.	56	10.37	69	10.33	77	11.22	10.60
	INFORM	138	25.56	139	20.81	196	28.57	23.59
	JOURNAL OF COLLEGE PLACEMENT	40	7.41	47	7.04	39	5.69	6.65
	NVGA BIBLIOGRAPHY	29	5.37	14	2.10	38	5.54	3.44
	VOCATIONAL GUIDANCE QUARTERLY	150	27.78	166	24.85	225	32.80	27.52
	INDEXES FROM EXTERNAL SOURCES	123	22.78	112	16.77	146	21.28	18.67
	PUBLISHER'S CATALOGS	369	68.33	431	64.52	478	69.68	66.38
	OTHER	59	10.93	67	10.03	85	12.39	10.82
	NONE	28	5.19	24	3.59	18	2.62	3.43
	NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
	DON'T KNOW	0	0.0	1	0.15	0	0.0	0.09
	NO RESPONSE	9	1.67	18	2.69	11	1.60	2.27

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS		STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES		FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
11A	OCC INFO RESOURCES AT SCHOOL:BOUND REFERENCES							
	A1 OCCUPATIONAL OUTLOOK HANDBOOK	508	94.07	599	89.67	667	97.23	92.29
	A2 DICTIONARY OF OCCUP. TITLES	477	88.33	523	78.29	624	90.96	82.99
	A3 GUIDE FOR OCCUP. EXPLORATION	72	13.33	69	10.33	75	10.93	10.77
	A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	272	50.37	262	39.22	390	56.85	45.58
	A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	139	25.74	127	19.01	205	29.88	22.92
	A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	74	13.70	49	7.34	97	14.14	9.98
	A7 THE NATIONAL APPRENTICESHIP PROGRAM	84	15.56	68	10.18	135	19.68	13.56
	A8 OCCUP. HANDBOOKS FOR THE MILITARY	393	72.78	487	72.90	546	79.59	74.87
	A9 WORKER TRAIT GROUP GUIDE	46	8.52	39	5.84	89	12.97	8.26
	A10 OTHER (BOUND REFERENCES)	59	10.93	61	9.13	80	11.66	10.06
	NO RESPONSE	12	2.22	21	3.14	5	0.73	2.32
11B	OCC INFO RESOURCES AT SCHOOL:OCCUPATIONAL BRIEFS AND KITS							
	B1 B'NAI B'RITH BRIEFS	30	5.56	21	3.14	36	5.25	4.00
	B2 CAREERS, INC.	186	34.44	170	25.45	277	40.38	30.80
	B3 CATALYST PAMPHLETS	11	2.04	8	1.20	30	4.37	2.25
	B4 CHRONICLE GUIDANCE	251	46.48	282	42.22	394	57.43	47.22
	B5 SRA BRIEFS	254	47.04	246	36.83	315	45.92	40.48
	B6 CCCUP. GUIDANCE BRIEFS	63	11.67	70	10.48	102	14.87	11.92
	B7 GUIDANCE CENTRE MONOGRAPHS	30	5.56	28	4.19	32	4.66	4.45
	B8 JOB FACT SHEETS	39	7.22	48	7.19	38	5.54	6.68
	B9 VOCATIONAL BIOGRAPHIES	99	18.33	120	17.96	178	25.95	20.43
	B10 OCCUP. BRIEFS PUBLISHED BY STATE	205	37.96	256	38.32	308	44.90	40.27
	B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	297	55.00	325	48.65	426	62.10	53.29
	B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	276	51.11	287	42.96	396	57.73	48.17
	B13 WRITE-UPS BY FORMER STUDENTS	20	3.70	21	3.14	24	3.50	3.30
	B14 OTHER (OCCUP. BRIEFS AND KITS)	55	10.19	69	10.33	97	14.14	11.48
	NO RESPONSE	48	8.89	65	9.73	43	6.27	8.58
11C	OCC INFO RESOURCES AT SCHOOL:PERIODICALS							
	C1 CAREER WORLD	261	48.33	256	38.32	361	52.62	43.56
	C2 OCCUP. IN DEMAND	51	9.44	63	9.43	73	10.64	9.79
	C3 OCCUP. OUTLOOK QUARTERLY	300	55.56	321	48.05	425	61.95	52.93
	C4 REAL WORLD	121	22.41	158	23.65	177	25.80	24.18
	C5 CIVIL SERVICE EXAM BULLETINS	162	30.00	195	29.19	268	39.07	32.27
	C6 OTHER (PERIODICALS)	34	6.30	47	7.04	63	9.18	7.62
	NO RESPONSE	97	17.96	160	23.95	105	15.31	20.75

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
11D OCC INFO RESOURCES AT SCHOOL:BOOK SERIES ON INDIVIDUAL OCCUPATIONS							
D1 OPPURTUNITIES IN . . .	84	15.56	78	11.68	139	20.26	14.64
D2 YOUR CAREER IN . . .	130	24.07	121	18.11	176	25.66	20.94
D3 YOUR FUTURE IN . . .	172	31.85	131	19.61	248	36.15	25.75
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	37	6.85	38	5.69	38	5.54	5.74
NO RESPONSE	306	56.67	449	67.22	352	51.31	61.34
11E OCC INFO RESOURCES AT SCHOOL:LIST OF EMPLOYERS							
E1 DIRECTORIES OF BUSINESSES	183	33.89	161	24.10	247	36.01	28.59
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	275	50.93	189	28.29	337	49.13	36.65
E3 OTHER (LIST OF EMPLOYERS)	33	6.11	29	4.34	34	4.96	4.68
NO RESPONSE	199	36.85	380	56.89	243	35.42	48.48
11F OCC INFO RESOURCES AT SCHOOL:EDUCATIONAL DIRECTORIES FOR OCCUPATIONS							
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	371	68.70	450	67.37	523	76.24	70.14
F2 VOCATIONAL SCHOOL DIRECTORIES	408	75.56	464	69.46	572	83.38	74.20
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	29	5.37	21	3.14	26	3.79	3.53
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	39	7.22	77	11.53	74	10.79	10.91
NO RESPONSE	80	14.81	114	17.07	55	8.02	14.07
11G OCC INFO RESOURCES AT SCHOOL:COMPUTERIZED INFORMATION SYSTEMS							
G1 CHOICES	0	0.0	2	0.30	0	0.0	0.18
G2 COIN	17	3.15	1	0.15	15	2.19	1.04
G3 CVIS	18	3.33	7	1.05	22	3.21	1.91
G4 DISCOVER	10	1.85	1	0.15	6	0.87	0.52
G5 GIS	73	13.52	42	6.29	138	20.12	11.16
G6 YOUR STATE SYSTEM	38	7.04	72	10.78	103	15.01	11.74
G7 YOUR SCHOOL OR COUNTY SYSTEM	17	3.15	3	0.45	27	3.94	1.76
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	15	2.78	6	0.90	13	1.90	1.37
NO RESPONSE	389	72.04	558	83.53	424	61.81	75.77
11H OCC INFO RESOURCES AT SCHOOL:A-V MATERIALS							
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	164	30.37	109	16.32	162	23.62	19.78
H2 EXTERNALLY PRODUCED A-V EQUIP.	402	74.44	456	68.26	521	75.95	71.10
H3 OTHER (AUDIO-VISUAL)	22	4.07	23	3.44	26	3.79	3.60
NO RESPONSE	109	20.19	180	26.95	143	20.85	24.45
11I OCC INFO RESOURCES AT SCHOOL:MICROFORMS							
I1 STATE OR REGIONAL MICROFILM	195	36.11	273	40.87	271	39.50	39.99
I2 LOCAL MICROFILM	64	11.85	34	5.09	54	7.87	6.53
I3 OTHER (MICROFORMS)	25	4.63	20	2.99	34	4.96	3.74
NO RESPONSE	306	56.67	376	56.29	372	54.23	55.63

(CONTINUED)

ALL SCHOOLS

		STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS		540		668		686		
ITEMS AND ALTERNATIVES		FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
11J	OCC INFO RESOURCES AT SCHOOL:NON COMPUTERIZED SORTING							
	J1 KEY OR NEEDLESORT	52	9.63	116	17.37	116	16.91	16.53
	J2 SCORE INTERP GUIDES FOR INVENTORIES	87	16.11	132	19.76	176	25.66	21.23
	J3 OTHER (NON-COMPUTER SORTING MATERIALS)	11	2.04	18	2.69	30	4.37	3.15
	NO RESPONSE	414	76.67	444	66.47	428	62.39	66.05
11K	OCC INFO RESOURCES AT SCHOOL:SCHOOL ARRANGED EXPERIENCES							
	K1 COURSES IN CAREER PLANNING	216	40.00	255	38.17	302	44.02	40.09
	K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	349	64.63	401	60.03	458	66.76	62.44
	K3 EXPLORATORY WORK EXPERIENCE	405	75.00	329	49.25	483	70.41	57.96
	K4 CAREER DAYS, SPEAKERS, ETC.	426	78.89	493	73.80	531	77.41	75.28
	K5 CAREER CLUBS	209	38.70	120	17.96	157	22.89	21.28
	K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	188	34.81	89	13.32	198	28.86	19.97
	K7 JOB SITE TOURS	382	70.74	372	55.69	430	62.68	59.10
	K8 JOB SHADOWING	126	23.33	74	11.08	172	25.07	16.44
	K9 CONFERENCES WITH COMMUNITY REPS	291	53.89	242	36.23	295	43.00	39.83
	K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	49	9.07	50	7.49	82	11.95	8.99
	NO RESPONSE	19	3.52	42	6.29	19	2.77	4.96
11L	OCC INFO RESOURCES AT SCHOOL:SIMULATIONS							
	L1 SIMULATIONS	118	21.85	112	16.77	134	19.53	18.05
	NO RESPONSE	422	78.15	556	83.23	552	80.47	81.85
11M	OCC INFO RESOURCES AT SCHOOL:PERSONAL CONTACT WITH SCHOOL STAFF							
	M1 CONFERENCES WITH COUNSELORS	471	87.22	540	80.84	597	87.03	83.22
	M2 ASSISTANCE FROM OTHER STAFF	345	63.89	238	35.63	388	56.56	44.51
	NO RESPONSE	59	10.93	114	17.07	69	10.06	14.36
12A	RESOURCE USED FOR QUES RE ENTRY REQUIREMENTS OF VARIOUS OCCUPATIONS							
	A1 OCCUPATIONAL OUTLOOK HANDBOOK	212	39.26	247	36.98	296	43.15	39.03
	A2 DICTIONARY OF OCCUP. TITLES	48	8.89	43	6.44	46	6.71	6.73
	A3 GUIDE FOR OCCUP. EXPLORATION	2	0.37	2	0.30	1	0.15	0.26
	A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	24	4.44	22	3.29	16	2.33	3.10
	A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	1	0.19	0	0.0	0	0.0	0.02
	A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
	A7 THE NATIONAL APPRENTICESHIP PROGRAM	1	0.19	2	0.30	2	0.29	0.29
	A8 OCCUP. HANDBOOKS FOR THE MILITARY	0	0.0	1	0.15	0	0.0	0.09
	A9 WORKER TRAIT GROUP GUIDE	1	0.19	0	0.0	1	0.15	0.06
	A10 OTHER (BOUND REFERENCES)	2	0.37	7	1.05	4	0.58	0.84
	B1 B'NAI B'RITH BRIEFS	1	0.19	0	0.0	0	0.0	0.02
	B2 CAREERS, INC.	8	1.48	7	1.05	13	1.90	1.35
	B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0

(CONTINUED)

ALL SCHOOLS

ITEMS AND ALTERNATIVES	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12A RESOURCE USED FOR QUES RE ENTRY REQUIREMENTS OF VARIOUS OCCUPATIONS							
B4 CHRONICLE GUIDANCE	19	3.52	28	4.19	40	5.83	4.63
B5 SRA BRIEFS	14	2.59	19	2.84	13	1.90	2.53
B6 OCCUP. GUIDANCE BRIEFS	3	0.56	6	0.90	6	0.87	0.86
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	2	0.30	0	0.0	0.18
B8 JOB FACT SHEETS	0	0.0	0	0.0	1	0.15	0.04
B9 VOCATIONAL BIOGRAPHIES	1	0.19	3	0.45	4	0.58	0.47
B10 OCCUP. BRIEFS PUBLISHED BY STATE	6	1.11	16	2.40	4	0.58	1.72
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	1	0.19	5	0.75	2	0.29	0.56
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	0	0.0	0	0.0	0	0.0	0.0
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	3	0.56	4	0.60	3	0.44	0.54
C1 CAREER WORLD	0	0.0	1	0.15	0	0.0	0.09
C2 OCCUP. IN DEMAND	0	0.0	0	0.0	0	0.0	0.0
C3 OCCUP. OUTLOOK QUARTERLY	1	0.19	0	0.0	1	0.15	0.06
C4 REAL WORLD	0	0.0	1	0.15	0	0.0	0.09
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	2	0.30	1	0.15	0.23
C6 OTHER (PERIODICALS)	1	0.19	0	0.0	2	0.29	0.11
D1 OPPURTUNITIES IN . . .	0	0.0	1	0.15	2	0.29	0.18
D2 YOUR CAREER IN . . .	1	0.19	0	0.0	1	0.15	0.06
D3 YOUR FUTURE IN . . .	0	0.0	0	0.0	0	0.0	0.0
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	0	0.0	0	0.0	0	0.0	0.0
E1 DIRECTORIES OF BUSINESSES	2	0.37	3	0.45	4	0.58	0.48
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	2	0.37	0	0.0	0	0.0	0.03
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	0	0.0	0	0.0	0.0
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	7	1.30	9	1.35	9	1.31	1.33
F2 VOCATIONAL SCHOOL DIRECTORIES	5	0.93	5	0.75	10	1.46	0.98
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	1	0.19	4	0.60	2	0.29	0.47
G1 CHOICES	0	0.0	1	0.15	0	0.0	0.09
G2 COIN	9	1.67	5	0.75	10	1.46	1.05
G3 CVIS	2	0.37	1	0.15	2	0.29	0.21
G4 DISCOVER	1	0.19	0	0.0	1	0.15	0.06
G5 GIS	23	4.26	11	1.65	36	5.25	2.98
G6 YOUR STATE SYSTEM	8	1.48	28	4.19	40	5.83	4.45
G7 YOUR SCHOOL OR COUNTY SYSTEM	3	0.56	1	0.15	3	0.44	0.27
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	3	0.56	1	0.15	2	0.29	0.23
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	1	0.19	1	0.15	0	0.0	0.11
H2 EXTERNALLY PRODUCED A-V EQUIP.	0	0.0	1	0.15	1	0.15	0.14
H3 OTHER (AUDIO-VISUAL)	0	0.0	0	0.0	0	0.0	0.0

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12A RESOURCE USED FOR QUES RE ENTRY REQUIREMENTS OF VARIOUS OCCUPATIONS							
I1 STATE OR REGIONAL MICROFILM	21	3.89	42	6.29	39	5.69	5.89
I2 LOCAL MICROFILM	4	0.74	0	0.0	0	0.0	0.07
I3 OTHER (MICROFORMS)	1	0.19	0	0.0	0	0.0	0.02
J1 KEY OR NEEDLESORT	2	0.37	11	1.65	1	0.15	1.07
J2 SCORE INTERP GUIDES FOR INVENTORIES	0	0.0	1	0.15	0	0.0	0.09
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	0	0.0	2	0.30	0	0.0	0.18
K1 COURSES IN CAREER PLANNING	0	0.0	0	0.0	2	0.29	0.09
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	2	0.37	1	0.15	1	0.15	0.17
K3 EXPLORATORY WORK EXPERIENCE	0	0.0	0	0.0	0	0.0	0.0
K4 CAREER DAYS, SPEAKERS, ETC.	2	0.37	2	0.30	1	0.15	0.26
K5 CAREER CLUBS	0	0.0	0	0.0	0	0.0	0.0
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	0	0.0	0	0.0	0.0
K7 JOB SITE TOURS	1	0.19	1	0.15	0	0.0	0.11
K8 JOB SHADOWING	0	0.0	0	0.0	1	0.15	0.04
K9 CONFERENCES WITH COMMUNITY REPS	5	0.93	4	0.60	2	0.29	0.53
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	1	0.19	2	0.30	0	0.0	0.20
L1 SIMULATIONS	1	0.19	0	0.0	0	0.0	0.02
M1 CONFERENCES WITH COUNSELORS	1	0.19	5	0.75	3	0.44	0.60
M2 ASSISTANCE FROM OTHER STAFF	0	0.0	0	0.0	0	0.0	0.0
A99 BOUND REFERENCES	1	0.19	0	0.0	2	0.29	0.11
B99 OCCUPATIONAL BRIEFS AND KITS	2	0.37	2	0.30	0	0.0	0.21
C99 PERIODICALS	0	0.0	0	0.0	0	0.0	0.0
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	1	0.19	0	0.0	1	0.15	0.06
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	1	0.19	0	0.0	0	0.0	0.02
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	0	0.0	0	0.0	0	0.0	0.0
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	14	2.59	11	1.65	7	1.02	1.54
DK DON'T KNOW	18	3.33	20	2.99	6	0.87	2.37
NO RESPONSE	45	8.33	74	11.08	41	5.98	9.26

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1		STRATUM2		STRATUM3		NATL EST
	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
12B RESOURCE USED FOR QUES RE EMPLOYMENT OUTLOOK IN VARIOUS OCCUPATIONS							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	300	55.56	359	53.74	400	58.31	55.25
A2 DICTIONARY OF OCCUP. TITLES	10	1.85	9	1.35	5	0.73	1.20
A3 GUIDE FOR OCCUP. EXPLORATION	5	0.93	2	0.30	1	0.15	0.31
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	7	1.30	8	1.20	4	0.58	1.02
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	1	0.19	0	0.0	0	0.0	0.02
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
A7 THE NATIONAL APPRENTICESHIP PROGRAM	0	0.0	0	0.0	0	0.0	0.0
A8 OCCUP. HANDBOOKS FOR THE MILITARY	0	0.0	2	0.30	2	0.29	0.27
A9 WORKER TRAIT GROUP GUIDE	0	0.0	0	0.0	0	0.0	0.0
A10 OTHER (BOUND REFERENCES)	2	0.37	8	1.20	8	1.17	1.11
B1 B'NAI B'RITH BRIEFS	2	0.37	0	0.0	0	0.0	0.03
B2 CAREERS, INC.	2	0.37	2	0.30	5	0.73	0.44
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	2	0.37	10	1.50	8	1.17	1.29
B5 SRA BRIEFS	3	0.56	3	0.45	0	0.0	0.32
B6 OCCUP. GUIDANCE BRIEFS	0	0.0	2	0.30	4	0.58	0.36
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	0	0.0	0	0.0	0.0
B8 JOB FACT SHEETS	1	0.19	3	0.45	0	0.0	0.29
B9 VOCATIONAL BIOGRAPHIES	1	0.19	0	0.0	0	0.0	0.02
B10 OCCUP. BRIEFS PUBLISHED BY STATE	11	2.04	18	2.69	16	2.33	2.52
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	0	0.0	0	0.0	2	0.29	0.09
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	0	0.0	0	0.0	0	0.0	0.0
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	3	0.56	3	0.45	2	0.29	0.41
C1 CAREER WORLD	2	0.37	4	0.60	3	0.44	0.53
C2 OCCUP. IN DEMAND	9	1.67	10	1.50	8	1.17	1.41
C3 OCCUP. OUTLOOK QUARTERLY	39	7.22	34	5.09	42	6.12	5.59
C4 REAL WORLD	0	0.0	0	0.0	0	0.0	0.0
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	0	0.0	1	0.15	0.04
C6 OTHER (PERIODICALS)	4	0.74	8	1.20	3	0.44	0.92
D1 OPPURTUNITIES IN . . .	2	0.37	0	0.0	0	0.0	0.03
D2 YOUR CAREER IN . . .	0	0.0	0	0.0	0	0.0	0.0
D3 YOUR FUTURE IN . . .	0	0.0	0	0.0	0	0.0	0.0
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	0	0.0	2	0.30	0	0.0	0.18
E1 DIRECTORIES OF BUSINESSES	4	0.74	2	0.30	3	0.44	0.38
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	1	0.19	0	0.0	0	0.0	0.02
E3 OTHER (LIST OF EMPLOYERS)	1	0.19	2	0.30	1	0.15	0.24
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	0	0.0	0	0.0	0	0.0	0.0
F2 VOCATIONAL SCHOOL DIRECTORIES	0	0.0	2	0.30	1	0.15	0.23
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	0	0.0	0	0.0	1	0.15	0.04

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12B RESOURCE USED FOR QUES RE EMPLOYMENT OUTLOOK IN VARIOUS OCCUPATIONS							
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	[illegible]	0.93	1	0.15	4	0.58	0.35
G3 CVIS	[illegible]	0.19	1	0.15	1	0.15	0.15
G4 DISCOVER	[illegible]	0.19	0	0.0	0	0.0	0.02
G5 GIS	[illegible]	3.15	9	1.35	35	5.10	2.66
G6 YOUR STATE SYSTEM	9	1.67	24	3.59	35	5.10	3.88
G7 YOUR SCHOOL OR COUNTY SYSTEM	2	0.37	0	0.0	1	0.15	0.08
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	2	0.37	2	0.30	1	0.15	0.26
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	1	0.19	0	0.0	0	0.0	0.02
H2 EXTERNALLY PRODUCED A-V EQUIP.	0	0.0	0	0.0	0	0.0	0.0
H3 OTHER (AUDIO-VISUAL)	0	0.0	0	0.0	0	0.0	0.0
I1 STATE OR REGIONAL MICROFILM	13	2.41	19	2.84	23	3.35	2.96
I2 LOCAL MICROFILM	2	0.37	0	0.0	0	0.0	0.03
I3 OTHER (MICROFORMS)	0	0.0	0	0.0	0	0.0	0.0
J1 KEY OR NEEDLESORT	0	0.0	8	1.20	1	0.15	0.77
J2 SCORE INTERP GUIDES FOR INVENTORIES	0	0.0	1	0.15	0	0.0	0.09
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	1	0.19	1	0.15	0	0.0	0.11
K1 COURSES IN CAREER PLANNING	0	0.0	0	0.0	1	0.15	0.04
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	0	0.0	1	0.15	1	0.15	0.14
K3 EXPLORATORY WORK EXPERIENCE	1	0.19	0	0.0	0	0.0	0.02
K4 CAREER DAYS, SPEAKERS, ETC.	1	0.19	3	0.45	2	0.29	0.38
K5 CAREER CLUBS	0	0.0	0	0.0	0	0.0	0.0
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	0	0.0	0	0.0	0.0
K7 JOB SITE TOURS	0	0.0	1	0.15	0	0.0	0.09
K8 JOB SHADOWING	0	0.0	0	0.0	0	0.0	0.0
K9 CONFERENCES WITH COMMUNITY REPS	1	0.19	2	0.30	1	0.15	0.24
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	0	0.0	1	0.15	0	0.0	0.09
L1 SIMULATIONS	1	0.19	0	0.0	0	0.0	0.02
M1 CONFERENCES WITH COUNSELORS	0	0.0	3	0.45	2	0.29	0.36
M2 ASSISTANCE FROM OTHER STAFF	0	0.0	0	0.0	1	0.15	0.04
A99 BOUND REFERENCES	2	0.37	0	0.0	1	0.15	0.08
B99 OCCUPATIONAL BRIEFS AND KITS	1	0.19	1	0.15	0	0.0	0.11
C99 PERIODICALS	1	0.19	1	0.15	1	0.15	0.15
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	0	0.0	0	0.0	0	0.0	0.0
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12B RESOURCE USED FOR QUES RE EMPLOYMENT OUTLOOK IN VARIOUS OCCUPATIONS							
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	1	0.19	0	0.0	0	0.0	0.02
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	11	2.04	11	1.65	9	1.31	1.58
DK DON'T KNOW	16	2.96	19	2.84	7	1.02	2.29
NO RESPONSE	38	7.04	66	9.88	39	5.69	8.33
12C RESOURCE USED FOR QUES RE SPEC APTITUDE/ABILITY/SKILL FOR VARIOUS OCC							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	144	26.67	155	23.20	172	25.07	24.06
A2 DICTIONARY OF OCCUP. TITLES	59	10.93	66	9.88	81	11.81	10.55
A3 GUIDE FOR OCCUP. EXPLORATION	8	1.48	2	0.30	1	0.15	0.36
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	32	5.93	16	2.40	26	3.79	3.13
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	0	0.0	0	0.0	1	0.15	0.04
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
A7 THE NATIONAL APPRENTICESHIP PROGRAM	1	0.19	1	0.15	1	0.15	0.15
A8 OCCUP. HANDBOOKS FOR THE MILITARY	0	0.0	4	0.60	3	0.44	0.50
A9 WORKER TRAIT GROUP GUIDE	9	1.67	7	1.05	9	1.31	1.18
A10 OTHER (BOUND REFERENCES)	1	0.19	7	1.05	6	0.87	0.92
B1 B'NAI B'RITH BRIEFS	0	0.0	0	0.0	0	0.0	0.0
B2 CAREERS, INC.	12	2.22	11	1.65	17	2.48	1.95
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	32	5.93	46	6.89	55	8.02	7.14
B5 SRA BRIEFS	15	2.78	26	3.89	21	3.06	3.54
B6 OCCUP. GUIDANCE BRIEFS	6	1.11	4	0.60	11	1.60	0.95
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	1	0.15	0	0.0	0.09
B8 JOB FACT SHEETS	1	0.19	1	0.15	1	0.15	0.15
B9 VOCATIONAL BIOGRAPHIES	2	0.37	5	0.75	7	1.02	0.80
B10 OCCUP. BRIEFS PUBLISHED BY STATE	4	0.74	16	2.40	7	1.02	1.83
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	2	0.37	6	0.90	3	0.44	0.71
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	1	0.19	0	0.0	1	0.15	0.06
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	4	0.74	8	1.20	5	0.73	1.01
C1 CAREER WORLD	0	0.0	1	0.15	0	0.0	0.09
C2 OCCUP. IN DEMAND	0	0.0	1	0.15	0	0.0	0.09
C3 OCCUP. OUTLOOK QUARTERLY	0	0.0	1	0.15	3	0.44	0.22
C4 REAL WORLD	0	0.0	0	0.0	0	0.0	0.0
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	1	0.15	4	0.58	0.27
C6 OTHER (PERIODICALS)	0	0.0	0	0.0	2	0.29	0.09

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12C RESOURCE USED FOR QUES RE SPEC APTITUDE/ABILITY/SKILL FOR VARIOUS OCC							
D1 OPPURTUNITIES IN . . .	0	0.0	0	0.0	1	0.15	0.04
D2 YOUR CAREER IN . . .	2	0.37	3	0.45	2	0.29	0.39
D3 YOUR FUTURE IN . . .	1	0.19	0	0.0	2	0.29	0.11
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	2	0.37	2	0.30	1	0.15	0.26
E1 DIRECTORIES OF BUSINESSES	0	0.0	1	0.15	0	0.0	0.09
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	1	0.19	0	0.0	0	0.0	0.02
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	0	0.0	0	0.0	0.0
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	3	0.56	2	0.30	4	0.58	0.41
F2 VOCATIONAL SCHOOL DIRECTORIES	3	0.56	5	0.75	2	0.29	0.59
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	1	0.15	0	0.0	0.09
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	0	0.0	0	0.0	1	0.15	0.04
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	10	1.85	2	0.30	7	1.02	0.66
G3 CVIS	5	0.93	1	0.15	3	0.44	0.31
G4 DISCOVER	1	0.19	0	0.0	0	0.0	0.02
G5 GIS	23	4.26	11	1.65	42	6.12	3.25
G6 YOUR STATE SYSTEM	9	1.67	28	4.19	40	5.83	4.47
G7 YOUR SCHOOL OR COUNTY SYSTEM	2	0.37	1	0.15	3	0.44	0.26
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	2	0.37	0	0.0	0	0.0	0.03
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	0	0.0	1	0.15	1	0.15	0.14
H2 EXTERNALLY PRODUCED A-V EQUIP.	2	0.37	5	0.75	4	0.58	0.66
H3 OTHER (AUDIO-VISUAL)	0	0.0	0	0.0	0	0.0	0.0
I1 STATE OR REGIONAL MICROFILM	21	3.89	52	7.78	42	6.12	6.92
I2 LOCAL MICROFILM	3	0.56	1	0.15	0	0.0	0.14
I3 OTHER (MICROFORMS)	0	0.0	0	0.0	0	0.0	0.0
J1 KEY OR NEEDLESORT	2	0.37	13	1.95	3	0.44	1.34
J2 SCORE INTERP GUIDES FOR INVENTORIES	2	0.37	4	0.60	5	0.73	0.62
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	0	0.0	3	0.45	2	0.29	0.36
K1 COURSES IN CAREER PLANNING	1	0.19	3	0.45	0	0.0	0.29
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	5	0.93	4	0.60	3	0.44	0.58
K3 EXPLORATORY WORK EXPERIENCE	2	0.37	1	0.15	1	0.15	0.17
K4 CAREER DAYS, SPEAKERS, ETC.	3	0.56	4	0.60	2	0.29	0.50
K5 CAREER CLUBS	0	0.0	0	0.0	0	0.0	0.0
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	1	0.15	0	0.0	0.09
K7 JOB SITE TOURS	1	0.19	2	0.30	0	0.0	0.20
K8 JOB SHADOWING	0	0.0	0	0.0	2	0.29	0.09
K9 CONFERENCES WITH COMMUNITY REPS	3	0.56	1	0.15	0	0.0	0.14
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	0	0.0	3	0.45	3	0.44	0.41
L1 SIMULATIONS	2	0.37	1	0.15	0	0.0	0.12

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12C RESOURCE USED FOR QUES RE SPEC APTITUDE/ABILITY/SKILL FOR VARIOUS OCC							
M1 CONFERENCES WITH COUNSELORS	2	0.37	5	0.75	4	0.58	0.66
M2 ASSISTANCE FROM OTHER STAFF	1	0.19	0	0.0	1	0.15	0.06
A99 BOUND REFERENCES	2	0.37	0	0.0	1	0.15	0.08
B99 OCCUPATIONAL BRIEFS AND KITS	2	0.37	2	0.30	1	0.15	0.26
C99 PERIODICALS	0	0.0	0	0.0	0	0.0	0.0
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	1	0.19	0	0.0	0	0.0	0.02
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	0	0.0	0	0.0	0	0.0	0.0
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	16	2.96	15	2.25	8	1.17	1.98
DK DON'T KNOW	19	3.52	26	3.89	10	1.46	3.11
NO RESPONSE	53	9.81	78	11.68	48	7.00	10.06
12D RESOURCE USED FOR QUES RE WORK ACTIVITIES IN VARIOUS OCCUPATIONS							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	161	29.81	181	27.10	200	29.15	27.94
A2 DICTIONARY OF OCCUP. TITLES	66	12.22	73	10.93	73	10.64	10.94
A3 GUIDE FOR OCCUP. EXPLORATION	10	1.85	8	1.20	2	0.29	0.98
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	23	4.26	24	3.59	29	4.23	3.84
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	1	0.19	0	0.0	0	0.0	0.02
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	1	0.19	0	0.0	0	0.0	0.02
A7 THE NATIONAL APPRENTICESHIP PROGRAM	0	0.0	0	0.0	0	0.0	0.0
A8 OCCUP. HANDBOOKS FOR THE MILITARY	3	0.56	2	0.30	1	0.15	0.27
A9 WORKER TRAIT GROUP GUIDE	4	0.74	3	0.45	8	1.17	0.69
A10 OTHER (BOUND REFERENCES)	0	0.0	5	0.75	4	0.58	0.63
B1 B'NAI B'RITH BRIEFS	0	0.0	1	0.15	1	0.15	0.14
B2 CAREERS, INC.	9	1.67	12	1.80	19	2.77	2.08
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	34	6.30	49	7.34	69	10.06	8.07
B5 SRA BRIEFS	18	3.33	29	4.34	23	3.35	3.94
B6 OCCUP. GUIDANCE BRIEFS	1	0.19	8	1.20	9	1.31	1.14
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	1	0.15	1	0.15	0.14
B8 JOB FACT SHEETS	1	0.19	0	0.0	3	0.44	0.15
B9 VOCATIONAL BIOGRAPHIES	3	0.56	10	1.50	18	2.62	1.76

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12D RESOURCE USED FOR QUES RE WORK ACTIVITIES IN VARIOUS OCCUPATIONS							
B10 OCCUP. BRIEFS PUBLISHED BY STATE	7	1.30	13	1.95	10	1.46	1.74
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	3	0.56	4	0.60	5	0.73	0.63
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	3	0.56	2	0.30	1	0.15	0.27
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	1	0.19	7	1.05	3	0.44	0.78
C1 CAREER WORLD	2	0.37	0	0.0	3	0.44	0.17
C2 OCCUP. IN DEMAND	1	0.19	0	0.0	0	0.0	0.02
C3 OCCUP. OUTLOOK QUARTERLY	0	0.0	1	0.15	5	0.73	0.31
C4 REAL WORLD	2	0.37	2	0.30	0	0.0	0.21
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	0	0.0	1	0.15	0.04
C6 OTHER (PERIODICALS)	0	0.0	0	0.0	1	0.15	0.04
D1 OPPURTUNITIES IN . . .	4	0.74	1	0.15	1	0.15	0.20
D2 YOUR CAREER IN . . .	0	0.0	2	0.30	0	0.0	0.18
D3 YOUR FUTURE IN . . .	2	0.37	2	0.30	3	0.44	0.35
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	0	0.0	1	0.15	0	0.0	0.09
E1 DIRECTORIES OF BUSINESSES	0	0.0	1	0.15	0	0.0	0.09
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	0	0.0	0	0.0	0	0.0	0.0
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	1	0.15	0	0.0	0.09
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	0	0.0	1	0.15	1	0.15	0.14
F2 VOCATIONAL SCHOOL DIRECTORIES	4	0.74	3	0.45	3	0.44	0.47
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	0	0.0	0	0.0	0	0.0	0.0
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	10	1.85	2	0.30	5	0.73	0.57
G3 CVIS	4	0.74	2	0.30	0	0.0	0.25
G4 DISCOVER	1	0.19	0	0.0	0	0.0	0.02
G5 GIS	19	3.52	15	2.25	36	5.25	3.28
G6 YOUR STATE SYSTEM	12	2.22	26	3.89	36	5.25	4.16
G7 YOUR SCHOOL OR COUNTY SYSTEM	2	0.37	0	0.0	1	0.15	0.08
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	1	0.19	0	0.0	0	0.0	0.02
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	1	0.19	1	0.15	1	0.15	0.15
H2 EXTERNALLY PRODUCED A-V EQUIP.	6	1.11	10	1.50	9	1.31	1.40
H3 OTHER (AUDIO-VISUAL)	0	0.0	1	0.15	0	0.0	0.09
I1 STATE OR REGIONAL MICROFILM	20	3.70	40	5.99	29	4.23	5.24
I2 LOCAL MICROFILM	1	0.19	1	0.15	1	0.15	0.15
I3 OTHER (MICROFORMS)	0	0.0	1	0.15	1	0.15	0.14
J1 KEY OR NEEDLESORT	0	0.0	9	1.35	2	0.29	0.90
J2 SCORE INTERP GUIDES FOR INVENTORIES	0	0.0	0	0.0	0	0.0	0.0
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	1	0.19	2	0.30	0	0.0	0.20

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12D RESOURCE USED FOR QUES RE WORK ACTIVITIES IN VARIOUS OCCUPATIONS							
K1 COURSES IN CAREER PLANNING	0	0.0	0	0.0	1	0.15	0.04
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	2	0.37	2	0.30	3	0.44	0.35
K3 EXPLORATORY WORK EXPERIENCE	2	0.37	1	0.15	0	0.0	0.12
K4 CAREER DAYS, SPEAKERS, ETC.	10	1.85	5	0.75	3	0.44	0.75
K5 CAREER CLUBS	0	0.0	0	0.0	0	0.0	0.0
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	0	0.0	0	0.0	0.0
K7 JOB SITE TOURS	0	0.0	1	0.15	2	0.29	0.18
K8 JOB SHADOWING	1	0.19	0	0.0	3	0.44	0.15
K9 CONFERENCES WITH COMMUNITY REPS	3	0.56	3	0.45	0	0.0	0.32
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	1	0.19	1	0.15	0	0.0	0.11
L1 SIMULATIONS	2	0.37	1	0.15	1	0.15	0.17
M1 CONFERENCES WITH COUNSELORS	0	0.0	2	0.30	3	0.44	0.32
M2 ASSISTANCE FROM OTHER STAFF	0	0.0	0	0.0	1	0.15	0.04
A99 BOUND REFERENCES	4	0.74	0	0.0	2	0.29	0.15
B99 OCCUPATIONAL BRIEFS AND KITS	1	0.19	0	0.0	0	0.0	0.02
C99 PERIODICALS	0	0.0	1	0.15	0	0.0	0.09
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	1	0.19	0	0.0	0	0.0	0.02
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	0	0.0	0	0.0	0	0.0	0.0
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	7	1.30	7	1.05	6	0.87	1.02
DK DON'T KNOW	17	3.15	20	2.99	6	0.87	2.35
NO RESPONSE	47	8.70	67	10.03	37	5.39	8.48
12E RESOURCE USED FOR QUES RE WORK ENVIRONMENTS OF VARIOUS OCCUPATIONS							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	155	28.70	187	27.99	220	32.07	29.28
A2 DICTIONARY OF OCCUP. TITLES	36	6.67	29	4.34	31	4.52	4.60
A3 GUIDE FOR OCCUP. EXPLORATION	5	0.93	5	0.75	2	0.29	0.62
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	24	4.44	22	3.29	21	3.06	3.32
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	0	0.0	0	0.0	0	0.0	0.0
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
A7 THE NATIONAL APPRENTICESHIP PROGRAM	0	0.0	0	0.0	0	0.0	0.0
A8 OCCUP. HANDBOOKS FOR THE MILITARY	1	0.19	0	0.0	0	0.0	0.02

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12E RESOURCE USED FOR QUES RE WORK ENVIRONMENTS OF VARIOUS OCCUPATIONS							
A9 WORKER TRAIT GROUP GUIDE	3	0.56	3	0.45	3	0.44	0.45
A10 OTHER (BOUND REFERENCES)	1	0.19	5	0.75	4	0.58	0.65
B1 B'NAI B'RITH BRIEFS	0	0.0	1	0.15	0	0.0	0.09
B2 CAREERS, INC.	10	1.85	10	1.50	17	2.48	1.83
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	28	5.19	54	8.08	60	8.75	8.02
B5 SRA BRIEFS	15	2.78	24	3.59	19	2.77	3.26
B6 OCCUP. GUIDANCE BRIEFS	3	0.56	9	1.35	7	1.02	1.18
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	0	0.0	1	0.15	0.04
B8 JOB FACT SHEETS	3	0.56	2	0.30	4	0.58	0.41
B9 VOCATIONAL BIOGRAPHIES	6	1.11	9	1.35	14	2.04	1.54
B10 OCCUP. BRIEFS PUBLISHED BY STATE	11	2.04	9	1.35	8	1.17	1.35
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	3	0.56	3	0.45	3	0.44	0.45
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	2	0.37	3	0.45	3	0.44	0.44
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	2	0.37	4	0.60	3	0.44	0.53
C1 CAREER WORLD	0	0.0	1	0.15	5	0.73	0.31
C2 OCCUP. IN DEMAND	1	0.19	0	0.0	0	0.0	0.02
C3 OCCUP. OUTLOOK QUARTERLY	0	0.0	2	0.30	6	0.87	0.45
C4 REAL WORLD	1	0.19	1	0.15	0	0.0	0.11
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	0	0.0	1	0.15	0.04
C6 OTHER (PERIODICALS)	0	0.0	0	0.0	1	0.15	0.04
D1 OPPURTUNITIES IN . . .	5	0.93	2	0.30	3	0.44	0.40
D2 YOUR CAREER IN . . .	2	0.37	3	0.45	2	0.29	0.39
D3 YOUR FUTURE IN . . .	3	0.56	2	0.30	2	0.29	0.32
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	1	0.19	2	0.30	0	0.0	0.20
E1 DIRECTORIES OF BUSINESSES	1	0.19	2	0.30	0	0.0	0.20
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	1	0.19	0	0.0	5	0.73	0.24
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	1	0.15	0	0.0	0.09
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	1	0.19	0	0.0	1	0.15	0.06
F2 VOCATIONAL SCHOOL DIRECTORIES	3	0.56	4	0.60	3	0.44	0.54
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	0	0.0	0	0.0	0	0.0	0.0
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	7	1.30	2	0.30	5	0.73	0.52
G3 CVIS	4	0.74	0	0.0	1	0.15	0.11
G4 DISCOVER	2	0.37	0	0.0	0	0.0	0.03
G5 GIS	17	3.15	11	1.65	33	4.81	2.75
G6 YOUR STATE SYSTEM	9	1.67	23	3.44	33	4.81	3.70

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12E RESOURCE USED FOR QUES RE WORK ENVIRONMENTS OF VARIOUS OCCUPATIONS							
G7 YOUR SCHOOL OR COUNTY SYSTEM	1	0.19	1	0.15	2	0.29	0.20
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	1	0.19	1	0.15	0	0.0	0.11
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	3	0.56	1	0.15	1	0.15	0.18
H2 EXTERNALLY PRODUCED A-V EQUIP.	10	1.85	17	2.54	19	2.77	2.55
H3 OTHER (AUDIO-VISUAL)	1	0.19	0	0.0	0	0.0	0.02
I1 STATE OR REGIONAL MICROFILM	14	2.59	35	5.24	29	4.23	4.69
I2 LOCAL MICROFILM	2	0.37	1	0.15	1	0.15	0.17
I3 OTHER (MICROFORMS)	0	0.0	0	0.0	2	0.29	0.09
J1 KEY OR NEEDLESORT	1	0.19	11	1.65	0	0.0	1.01
J2 SCORE INTERP GUIDES FOR INVENTORIES	0	0.0	1	0.15	0	0.0	0.09
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	1	0.19	4	0.60	0	0.0	0.38
K1 COURSES IN CAREER PLANNING	0	0.0	1	0.15	1	0.15	0.14
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	1	0.19	3	0.45	1	0.15	0.33
K3 EXPLORATORY WORK EXPERIENCE	5	0.93	4	0.60	6	0.87	0.71
K4 CAREER DAYS, SPEAKERS, ETC.	8	1.48	5	0.75	4	0.58	0.76
K5 CAREER CLUBS	0	0.0	0	0.0	1	0.15	0.04
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	0	0.0	0	0.0	0.0
K7 JOB SITE TOURS	11	2.04	10	1.50	11	1.60	1.58
K8 JOB SHADOWING	2	0.37	1	0.15	3	0.44	0.26
K9 CONFERENCES WITH COMMUNITY REPS	4	0.74	7	1.05	3	0.44	0.83
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	1	0.19	1	0.15	1	0.15	0.15
L1 SIMULATIONS	4	0.74	1	0.15	0	0.0	0.16
M1 CONFERENCES WITH COUNSELORS	1	0.19	6	0.90	4	0.58	0.74
M2 ASSISTANCE FROM OTHER STAFF	0	0.0	0	0.0	1	0.15	0.04
A99 BOUND REFERENCES	3	0.56	0	0.0	1	0.15	0.09
B99 OCCUPATIONAL BRIEFS AND KITS	1	0.19	0	0.0	0	0.0	0.02
C99 PERIODICALS	1	0.19	1	0.15	1	0.15	0.15
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	1	0.19	0	0.0	0	0.0	0.02
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	1	0.19	0	0.0	0	0.0	0.02
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	13	2.41	16	2.40	11	1.60	2.15
DK DON'T KNOW	29	5.37	30	4.49	16	2.33	3.90
NO RESPONSE	54	10.00	75	11.23	46	6.71	9.72

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
12F RESOURCE USED FOR QUES RE SECURITY/JOB TENURE OF VARIOUS OCCUPATIONS							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	168	31.11	189	28.29	226	32.94	29.94
A2 DICTIONARY OF OCCUP. TITLES	14	2.59	18	2.69	10	1.46	2.30
A3 GUIDE FOR OCCUP. EXPLORATION	5	0.93	3	0.45	1	0.15	0.40
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	13	2.41	19	2.84	14	2.04	2.56
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	0	0.0	0	0.0	0	0.0	0.0
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	1	0.19	0	0.0	0	0.0	0.02
A7 THE NATIONAL APPRENTICESHIP PROGRAM	1	0.19	0	0.0	0	0.0	0.02
A8 OCCUP. HANDBOOKS FOR THE MILITARY	0	0.0	0	0.0	0	0.0	0.0
A9 WORKER TRAIT GROUP GUIDE	0	0.0	1	0.15	0	0.0	0.09
A10 OTHER (BOUND REFERENCES)	4	0.74	3	0.45	2	0.29	0.43
B1 B'NAI B'RITH BRIEFS	0	0.0	0	0.0	0	0.0	0.0
B2 CAREERS, INC.	6	1.11	4	0.60	7	1.02	0.77
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	12	2.22	31	4.64	40	5.83	4.79
B5 SRA BRIEFS	7	1.30	18	2.69	10	1.46	2.19
B6 OCCUP. GUIDANCE BRIEFS	1	0.19	2	0.30	5	0.73	0.42
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	0	0.0	1	0.15	0.04
B8 JOB FACT SHEETS	2	0.37	3	0.45	2	0.29	0.39
B9 VOCATIONAL BIOGRAPHIES	3	0.56	4	0.60	7	1.02	0.72
B10 OCCUP. BRIEFS PUBLISHED BY STATE	6	1.11	17	2.54	10	1.46	2.08
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	13	2.41	8	1.20	8	1.17	1.29
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	7	1.30	1	0.15	3	0.44	0.34
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	7	1.30	3	0.45	6	0.87	0.65
C1 CAREER WORLD	1	0.19	1	0.15	0	0.0	0.11
C2 OCCUP. IN DEMAND	5	0.93	2	0.30	1	0.15	0.31
C3 OCCUP. OUTLOOK QUARTERLY	17	3.15	12	1.80	17	2.48	2.12
C4 REAL WORLD	0	0.0	0	0.0	1	0.15	0.04
C5 CIVIL SERVICE EXAM BULLETINS	1	0.19	0	0.0	1	0.15	0.06
C6 OTHER (PERIODICALS)	3	0.56	3	0.45	2	0.29	0.41
D1 OPPURTUNITIES IN . . .	3	0.56	1	0.15	5	0.73	0.36
D2 YOUR CAREER IN . . .	1	0.19	0	0.0	3	0.44	0.15
D3 YOUR FUTURE IN . . .	5	0.93	4	0.60	1	0.15	0.49
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	1	0.19	2	0.30	0	0.0	0.20
E1 DIRECTORIES OF BUSINESSES	0	0.0	2	0.30	0	0.0	0.18
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	5	0.93	0	0.0	4	0.58	0.26
E3 OTHER (LIST OF EMPLOYERS)	1	0.19	1	0.15	0	0.0	0.11
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	1	0.19	1	0.15	0	0.0	0.11
F2 VOCATIONAL SCHOOL DIRECTORIES	1	0.19	2	0.30	2	0.29	0.29
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	1	0.19	0	0.0	0	0.0	0.02
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	1	0.19	0	0.0	0	0.0	0.02

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12F RESOURCE USED FOR QUES RE SECURITY/JOB TENURE OF VARIOUS OCCUPATIONS							
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	3	0.56	1	0.15	3	0.44	0.27
G3 CVIS	2	0.37	1	0.15	0	0.0	0.12
G4 DISCOVER	0	0.0	0	0.0	0	0.0	0.0
G5 GIS	11	2.04	2	0.30	21	3.06	1.30
G6 YOUR STATE SYSTEM	5	0.93	11	1.65	27	3.94	2.28
G7 YOUR SCHOOL OR COUNTY SYSTEM	1	0.19	0	0.0	1	0.15	0.06
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	1	0.19	0	0.0	0	0.0	0.02
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	0	0.0	0	0.0	0	0.0	0.0
H2 EXTERNALLY PRODUCED A-V EQUIP.	3	0.56	5	0.75	4	0.58	0.68
H3 OTHER (AUDIO-VISUAL)	1	0.19	0	0.0	0	0.0	0.02
I1 STATE OR REGIONAL MICROFILM	13	2.41	27	4.04	23	3.35	3.68
I2 LOCAL MICROFILM	2	0.37	1	0.15	0	0.0	0.12
I3 OTHER (MICROFORMS)	0	0.0	0	0.0	0	0.0	0.0
J1 KEY OR NEEDLESORT	0	0.0	5	0.75	1	0.15	0.50
J2 SCORE INTERP GUIDES FOR INVENTORIES	0	0.0	0	0.0	1	0.15	0.04
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	0	0.0	2	0.30	0	0.0	0.18
K1 COURSES IN CAREER PLANNING	1	0.19	1	0.15	3	0.44	0.24
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	2	0.37	0	0.0	3	0.44	0.17
K3 EXPLORATORY WORK EXPERIENCE	1	0.19	1	0.15	0	0.0	0.11
K4 CAREER DAYS, SPEAKERS, ETC.	9	1.67	7	1.05	6	0.87	1.05
K5 CAREER CLUBS	0	0.0	0	0.0	0	0.0	0.0
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	0	0.0	0	0.0	0.0
K7 JOB SITE TOURS	2	0.37	2	0.30	1	0.15	0.26
K8 JOB SHADOWING	3	0.56	1	0.15	6	0.87	0.41
K9 CONFERENCES WITH COMMUNITY REPS	10	1.85	11	1.65	13	1.90	1.74
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	1	0.19	1	0.15	1	0.15	0.15
L1 SIMULATIONS	0	0.0	1	0.15	1	0.15	0.14
M1 CONFERENCES WITH COUNSELORS	1	0.19	4	0.60	6	0.87	0.65
M2 ASSISTANCE FROM OTHER STAFF	0	0.0	0	0.0	0	0.0	0.0
A99 BOUND REFERENCES	3	0.56	0	0.0	3	0.44	0.18
B99 OCCUPATIONAL BRIEFS AND KITS	1	0.19	2	0.30	1	0.15	0.24
C99 PERIODICALS	0	0.0	0	0.0	0	0.0	0.0
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	0	0.0	0	0.0	0	0.0	0.0
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12F RESOURCE USED FOR QUES RE SECURITY/JOB TENURE OF VARIOUS OCCUPATIONS							
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	1	0.19	0	0.0	0	0.0	0.02
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	28	5.19	49	7.34	36	5.25	6.50
DK DON'T KNOW	48	8.89	85	12.72	69	10.06	11.56
NO RESPONSE	70	12.96	93	13.92	67	9.77	12.55
12G RESOURCE USED FOR QUES RE OPPORTUNITY HELPING OTHERS IN VARIOUS OCC							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	74	13.70	109	16.32	108	15.74	15.89
A2 DICTIONARY OF OCCUP. TITLES	17	3.15	19	2.84	19	2.77	2.85
A3 GUIDE FOR OCCUP. EXPLORATION	4	0.74	7	1.05	6	0.87	0.97
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	18	3.33	15	2.25	18	2.62	2.46
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	1	0.19	1	0.15	0	0.0	0.11
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	3	0.56	2	0.30	1	0.15	0.27
A7 THE NATIONAL APPRENTICESHIP PROGRAM	0	0.0	0	0.0	0	0.0	0.0
A8 OCCUP. HANDBOOKS FOR THE MILITARY	0	0.0	0	0.0	0	0.0	0.0
A9 WORKER TRAIT GROUP GUIDE	3	0.56	8	1.20	5	0.73	1.00
A10 OTHER (BOUND REFERENCES)	4	0.74	6	0.90	6	0.87	0.88
B1 B'NAI B'RITH BRIEFS	0	0.0	1	0.15	1	0.15	0.14
B2 CAREERS, INC.	7	1.30	5	0.75	11	1.60	1.06
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	11	2.04	23	3.44	32	4.66	3.69
B5 SRA BRIEFS	11	2.04	19	2.84	9	1.31	2.30
B6 OCCUP. GUIDANCE BRIEFS	1	0.19	3	0.45	3	0.44	0.42
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	0	0.0	0	0.0	0.0
B8 JOB FACT SHEETS	0	0.0	0	0.0	1	0.15	0.04
B9 VOCATIONAL BIOGRAPHIES	4	0.74	6	0.90	8	1.17	0.97
B10 OCCUP. BRIEFS PUBLISHED BY STATE	8	1.48	13	1.95	2	0.29	1.40
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	10	1.85	7	1.05	13	1.90	1.38
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	2	0.37	1	0.15	1	0.15	0.17
B13 WRITE-UPS BY FORMER STUDENTS	1	0.19	0	0.0	0	0.0	0.02
B14 OTHER (OCCUP. BRIEFS AND KITS)	2	0.37	3	0.45	4	0.58	0.48
C1 CAREER WORLD	3	0.56	0	0.0	3	0.44	0.18
C2 OCCUP. IN DEMAND	1	0.19	1	0.15	1	0.15	0.15
C3 OCCUP. OUTLOOK QUARTERLY	2	0.37	2	0.30	2	0.29	0.30
C4 REAL WORLD	4	0.74	3	0.45	1	0.15	0.38
C5 CIVIL SERVICE EXAM BULLETINS	1	0.19	0	0.0	0	0.0	0.02
C6 OTHER (PERIODICALS)	1	0.19	0	0.0	1	0.15	0.06

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12G RESOURCE USED FOR QUES RE OPPORTUNITY HELPING OTHERS IN VARIOUS OCC							
D1 OPPURTUNITIES IN . . .	6	1.11	5	0.75	7	1.02	0.86
D2 YOUR CAREER IN . . .	1	0.19	3	0.45	0	0.0	0.29
D3 YOUR FUTURE IN . . .	4	0.74	3	0.45	2	0.29	0.43
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	2	0.37	0	0.0	1	0.15	0.08
E1 DIRECTORIES OF BUSINESSES	1	0.19	2	0.30	1	0.15	0.24
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	3	0.56	3	0.45	6	0.87	0.59
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	1	0.15	1	0.15	0.14
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	2	0.37	0	0.0	0	0.0	0.03
F2 VOCATIONAL SCHOOL DIRECTORIES	3	0.56	1	0.15	3	0.44	0.27
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	1	0.19	0	0.0	0	0.0	0.02
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	0	0.0	0	0.0	0	0.0	0.0
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	5	0.93	0	0.0	4	0.58	0.26
G3 CVIS	2	0.37	0	0.0	1	0.15	0.08
G4 DISCOVER	0	0.0	1	0.15	0	0.0	0.09
G5 GIS	17	3.15	14	2.10	41	5.98	3.38
G6 YOUR STATE SYSTEM	7	1.30	13	1.95	19	2.77	2.14
G7 YOUR SCHOOL OR COUNTY SYSTEM	1	0.19	1	0.15	0	0.0	0.11
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	2	0.37	1	0.15	0	0.0	0.12
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	0	0.0	0	0.0	3	0.44	0.13
H2 EXTERNALLY PRODUCED A-V EQUIP.	6	1.11	7	1.05	9	1.31	1.13
H3 OTHER (AUDIO-VISUAL)	0	0.0	2	0.30	0	0.0	0.18
I1 STATE OR REGIONAL MICROFILM	12	2.22	19	2.84	14	2.04	2.54
I2 LOCAL MICROFILM	2	0.37	0	0.0	1	0.15	0.08
I3 OTHER (MICROFORMS)	0	0.0	0	0.0	0	0.0	0.0
J1 KEY OR NEEDLESORT	1	0.19	7	1.05	2	0.29	0.74
J2 SCORE INTERP GUIDES FOR INVENTORIES	0	0.0	0	0.0	5	0.73	0.22
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	1	0.19	2	0.30	1	0.15	0.24
K1 COURSES IN CAREER PLANNING	0	0.0	1	0.15	3	0.44	0.22
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	2	0.37	2	0.30	3	0.44	0.35
K3 EXPLORATORY WORK EXPERIENCE	5	0.93	2	0.30	5	0.73	0.49
K4 CAREER DAYS, SPEAKERS, ETC.	8	1.48	6	0.90	11	1.60	1.17
K5 CAREER CLUBS	0	0.0	1	0.15	0	0.0	0.09
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	6	1.11	3	0.45	4	0.58	0.55
K7 JOB SITE TOURS	3	0.56	0	0.0	2	0.29	0.14
K8 JOB SHADOWING	0	0.0	2	0.30	4	0.58	0.36
K9 CONFERENCES WITH COMMUNITY REPS	9	1.67	8	1.20	6	0.87	1.14
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	1	0.19	1	0.15	3	0.44	0.24
L1 SIMULATIONS	1	0.19	1	0.15	0	0.0	0.11

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12G RESOURCE USED FOR QUES RE OPPORTUNITY HELPING OTHERS IN VARIOUS OCC							
M1 CONFERENCES WITH COUNSELORS	7	1.30	10	1.50	11	1.60	1.51
M2 ASSISTANCE FROM OTHER STAFF	1	0.19	0	0.0	3	0.44	0.15
A99 BOUND REFERENCES	1	0.19	0	0.0	4	0.58	0.20
B99 OCCUPATIONAL BRIEFS AND KITS	1	0.19	1	0.15	0	0.0	0.11
C99 PERIODICALS	0	0.0	0	0.0	0	0.0	0.0
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	1	0.15	0	0.0	0.09
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	1	0.15	0.04
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	0	0.0	0	0.0	0	0.0	0.0
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	1	0.19	1	0.15	0	0.0	0.11
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	46	8.52	68	10.18	46	6.71	8.96
DK DON'T KNOW	80	14.81	103	15.42	113	16.47	15.67
NO RESPONSE	96	17.78	118	17.66	90	13.12	16.26
12H RESOURCE USED FOR QUES RE ACCESSIBILITY VAR OCC TO THE HANDICAPPED							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	20	3.70	50	7.49	31	4.52	6.23
A2 DICTIONARY OF OCCUP. TITLES	6	1.11	5	0.75	9	1.31	0.95
A3 GUIDE FOR OCCUP. EXPLORATION	1	0.19	1	0.15	1	0.15	0.15
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	5	0.93	5	0.75	7	1.02	0.85
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	0	0.0	0	0.0	1	0.15	0.04
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	99	18.33	61	9.13	88	12.83	11.07
A7 THE NATIONAL APPRENTICESHIP PROGRAM	1	0.19	0	0.0	0	0.0	0.02
A8 OCCUP. HANDBOOKS FOR THE MILITARY	1	0.19	0	0.0	0	0.0	0.02
A9 WORKER TRAIT GROUP GUIDE	1	0.19	2	0.30	1	0.15	0.24
A10 OTHER (BOUND REFERENCES)	5	0.93	1	0.15	2	0.29	0.26
B1 B'NAI B'RITH BRIEFS	0	0.0	0	0.0	0	0.0	0.0
B2 CAREERS, INC.	1	0.19	3	0.45	3	0.44	0.42
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	1	0.15	0.04
B4 CHRONICLE GUIDANCE	5	0.93	9	1.35	9	1.31	1.30
B5 SRA BRIEFS	3	0.56	5	0.75	1	0.15	0.55
B6 OCCUP. GUIDANCE BRIEFS	0	0.0	0	0.0	2	0.29	0.09
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	0	0.0	0	0.0	0.0
B8 JOB FACT SHEETS	0	0.0	0	0.0	1	0.15	0.04
B9 VOCATIONAL BIOGRAPHIES	0	0.0	3	0.45	1	0.15	0.32

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12H RESOURCE USED FOR QUES RE ACCESSIBILITY VAR OCC TO THE HANDICAPPED							
B10 OCCUP. BRIEFS PUBLISHED BY STATE	6	1.11	7	1.05	7	1.02	1.04
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	3	0.56	6	0.90	9	1.31	0.99
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	2	0.37	1	0.15	1	0.15	0.17
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	1	0.19	3	0.45	7	1.02	0.60
C1 CAREER WORLD	2	0.37	1	0.15	5	0.73	0.35
C2 OCCUP. IN DEMAND	0	0.0	0	0.0	0	0.0	0.0
C3 OCCUP. OUTLOOK QUARTERLY	3	0.56	1	0.15	3	0.44	0.27
C4 REAL WORLD	1	0.19	1	0.15	0	0.0	0.11
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	1	0.15	0	0.0	0.09
C6 OTHER (PERIODICALS)	4	0.74	0	0.0	0	0.0	0.07
D1 OPPURTUNITIES IN . . .	0	0.0	1	0.15	0	0.0	0.09
D2 YOUR CAREER IN . . .	2	0.37	0	0.0	0	0.0	0.03
D3 YOUR FUTURE IN . . .	0	0.0	0	0.0	0	0.0	0.0
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	1	0.19	1	0.15	0	0.0	0.11
E1 DIRECTORIES OF BUSINESSES	1	0.19	3	0.45	0	0.0	0.29
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	5	0.93	2	0.30	3	0.44	0.40
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	5	0.75	1	0.15	0.50
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	1	0.19	1	0.15	2	0.29	0.20
F2 VOCATIONAL SCHOOL DIRECTORIES	1	0.19	3	0.45	3	0.44	0.42
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	1	0.19	3	0.45	0	0.0	0.29
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	1	0.19	1	0.15	0	0.0	0.11
G3 CVIS	0	0.0	2	0.30	1	0.15	0.23
G4 DISCOVER	1	0.19	0	0.0	0	0.0	0.02
G5 GIS	7	1.30	4	0.60	21	3.06	1.42
G6 YOUR STATE SYSTEM	6	1.11	8	1.20	13	1.90	1.40
G7 YOUR SCHOOL OR COUNTY SYSTEM	2	0.37	1	0.15	0	0.0	0.12
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	1	0.19	0	0.0	2	0.29	0.11
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	1	0.19	1	0.15	1	0.15	0.15
H2 EXTERNALLY PRODUCED A-V EQUIP.	1	0.19	4	0.60	3	0.44	0.51
H3 OTHER (AUDIO-VISUAL)	0	0.0	0	0.0	0	0.0	0.0
I1 STATE OR REGIONAL MICROFILM	7	1.30	10	1.50	11	1.60	1.51
I2 LOCAL MICROFILM	1	0.19	0	0.0	0	0.0	0.02
I3 OTHER (MICROFORMS)	0	0.0	0	0.0	1	0.15	0.04
J1 KEY OR NEEDLESORT	1	0.19	0	0.0	0	0.0	0.02
J2 SCORE INTERP GUIDES FOR INVENTORIES	0	0.0	1	0.15	0	0.0	0.09
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	1	0.19	2	0.30	2	0.29	0.29

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12H RESOURCE USED FOR QUES RE ACCESSIBILITY VAR OCC TO THE HANDICAPPED							
K1 COURSES IN CAREER PLANNING	2	0.37	0	0.0	1	0.15	0.08
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	3	0.56	3	0.45	1	0.15	0.36
K3 EXPLORATORY WORK EXPERIENCE	0	0.0	1	0.15	1	0.15	0.14
K4 CAREER DAYS, SPEAKERS, ETC.	3	0.56	4	0.60	3	0.44	0.54
K5 CAREER CLUBS	0	0.0	0	0.0	0	0.0	0.0
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	2	0.37	2	0.30	3	0.44	0.35
K7 JOB SITE TOURS	2	0.37	1	0.15	3	0.44	0.26
K8 JOB SHADOWING	1	0.19	1	0.15	1	0.15	0.15
K9 CONFERENCES WITH COMMUNITY REPS	11	2.04	8	1.20	15	2.19	1.57
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	3	0.56	11	1.65	11	1.60	1.54
L1 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M1 CONFERENCES WITH COUNSELORS	7	1.30	9	1.35	10	1.46	1.38
M2 ASSISTANCE FROM OTHER STAFF	4	0.74	3	0.45	8	1.17	0.69
A99 BOUND REFERENCES	1	0.19	2	0.30	1	0.15	0.24
B99 OCCUPATIONAL BRIEFS AND KITS	0	0.0	1	0.15	0	0.0	0.09
C99 PERIODICALS	0	0.0	0	0.0	0	0.0	0.0
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	3	0.44	0.13
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	0	0.0	0	0.0	0	0.0	0.0
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	1	0.19	0	0.0	1	0.15	0.06
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	94	17.41	117	17.51	113	16.47	17.17
DK DON'T KNOW	91	16.85	153	22.90	146	21.28	21.85
NO RESPONSE	103	19.07	133	19.91	111	16.18	18.67
12I RESOURCE USED FOR QUES RE UP-TO-DATE LOCAL WAGE AND SALARY INFORMATION							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	44	8.15	77	11.53	68	9.91	10.72
A2 DICTIONARY OF OCCUP. TITLES	6	1.11	3	0.45	3	0.44	0.50
A3 GUIDE FOR OCCUP. EXPLORATION	1	0.19	1	0.15	1	0.15	0.15
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	4	0.74	3	0.45	1	0.15	0.38
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	1	0.19	0	0.0	0	0.0	0.02
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
A7 THE NATIONAL APPRENTICESHIP PROGRAM	1	0.19	1	0.15	0	0.0	0.11
A8 OCCUP. HANDBOOKS FOR THE MILITARY	1	0.19	0	0.0	1	0.15	0.06

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12I RESOURCE USED FOR QUES RE UP-TO-DATE LOCAL WAGE AND SALARY INFORMATION							
A9 WORKER TRAIT GROUP GUIDE	0	0.0	0	0.0	0	0.0	0.0
A10 OTHER (BOUND REFERENCES)	8	1.48	6	0.90	7	1.02	0.99
B1 B'NAI B'RITH BRIEFS	0	0.0	0	0.0	0	0.0	0.0
B2 CAREERS, INC.	1	0.19	2	0.30	3	0.44	0.33
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	6	1.11	6	0.90	14	2.04	1.27
B5 SRA BRIEFS	0	0.0	2	0.30	3	0.44	0.32
B6 OCCUP. GUIDANCE BRIEFS	1	0.19	1	0.15	0	0.0	0.11
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	0	0.0	0	0.0	0.0
B8 JOB FACT SHEETS	4	0.74	3	0.45	1	0.15	0.38
B9 VOCATIONAL BIOGRAPHIES	0	0.0	1	0.15	1	0.15	0.14
B10 OCCUP. BRIEFS PUBLISHED BY STATE	41	7.59	41	6.14	50	7.29	6.61
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	3	0.56	4	0.60	4	0.58	0.59
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	3	0.56	5	0.75	4	0.58	0.68
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	1	0.15	1	0.15	0.14
B14 OTHER (OCCUP. BRIEFS AND KITS)	9	1.67	12	1.80	8	1.17	1.59
C1 CAREER WORLD	3	0.56	3	0.45	3	0.44	0.45
C2 OCCUP. IN DEMAND	7	1.30	13	1.95	13	1.90	1.87
C3 OCCUP. OUTLOOK QUARTERLY	26	4.81	29	4.34	30	4.37	4.39
C4 REAL WORLD	0	0.0	1	0.15	0	0.0	0.09
C5 CIVIL SERVICE EXAM BULLETINS	9	1.67	6	0.90	12	1.75	1.23
C6 OTHER (PERIODICALS)	12	2.22	17	2.54	20	2.92	2.63
D1 OPPURTUNITIES IN . . .	0	0.0	0	0.0	0	0.0	0.0
D2 YOUR CAREER IN . . .	0	0.0	0	0.0	0	0.0	0.0
D3 YOUR FUTURE IN . . .	0	0.0	0	0.0	0	0.0	0.0
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	0	0.0	2	0.30	1	0.15	0.23
E1 DIRECTORIES OF BUSINESSES	9	1.67	7	1.05	12	1.75	1.32
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	11	2.04	8	1.20	7	1.02	1.22
E3 OTHER (LIST OF EMPLOYERS)	5	0.93	12	1.80	5	0.73	1.39
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	0	0.0	0	0.0	0	0.0	0.0
F2 VOCATIONAL SCHOOL DIRECTORIES	0	0.0	2	0.30	2	0.29	0.27
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	1	0.19	2	0.30	3	0.44	0.33
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	6	1.11	4	0.60	5	0.73	0.68
G3 CVIS	7	1.30	3	0.45	3	0.44	0.52
G4 DISCOVER	1	0.19	0	0.0	1	0.15	0.06
G5 GIS	14	2.59	11	1.65	32	4.66	2.65
G6 YOUR STATE SYSTEM	19	3.52	35	5.24	57	8.31	6.03

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12I RESOURCE USED FOR QUES RE UP-TO-DATE LOCAL WAGE AND SALARY INFORMATION							
G7 YOUR SCHOOL OR COUNTY SYSTEM	7	1.30	1	0.15	3	0.44	0.34
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	3	0.56	2	0.30	3	0.44	0.36
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	0	0.0	2	0.30	1	0.15	0.23
H2 EXTERNALLY PRODUCED A-V EQUIP.	0	0.0	1	0.15	0	0.0	0.09
H3 OTHER (AUDIO-VISUAL)	0	0.0	1	0.15	1	0.15	0.14
I1 STATE OR REGIONAL MICROFILM	51	9.44	62	9.28	70	10.20	9.57
I2 LOCAL MICROFILM	9	1.67	5	0.75	7	1.02	0.91
I3 OTHER (MICROFORMS)	1	0.19	3	0.45	2	0.29	0.38
J1 KEY OR NEEDLESORT	4	0.74	16	2.40	5	0.73	1.74
J2 SCORE INTERP GUIDES FOR INVENTORIES	0	0.0	0	0.0	0	0.0	0.0
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	0	0.0	2	0.30	0	0.0	0.18
K1 COURSES IN CAREER PLANNING	2	0.37	0	0.0	1	0.15	0.08
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	1	0.19	0	0.0	3	0.44	0.15
K3 EXPLORATORY WORK EXPERIENCE	2	0.37	0	0.0	3	0.44	0.17
K4 CAREER DAYS, SPEAKERS, ETC.	5	0.93	13	1.95	16	2.33	1.97
K5 CAREER CLUBS	0	0.0	1	0.15	0	0.0	0.09
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	1	0.15	1	0.15	0.14
K7 JOB SITE TOURS	4	0.74	3	0.45	0	0.0	0.34
K8 JOB SHADOWING	0	0.0	1	0.15	3	0.44	0.22
K9 CONFERENCES WITH COMMUNITY REPS	27	5.00	22	3.29	25	3.64	3.55
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	3	0.56	5	0.75	5	0.73	0.72
L1 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M1 CONFERENCES WITH COUNSELORS	2	0.37	5	0.75	3	0.44	0.62
M2 ASSISTANCE FROM OTHER STAFF	0	0.0	1	0.15	2	0.29	0.18
A99 BOUND REFERENCES	1	0.19	0	0.0	0	0.0	0.02
B99 OCCUPATIONAL BRIEFS AND KITS	0	0.0	2	0.30	1	0.15	0.23
C99 PERIODICALS	1	0.19	0	0.0	1	0.15	0.06
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	1	0.19	0	0.0	0	0.0	0.02
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	0	0.0	0	0.0	0	0.0	0.0
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	42	7.78	57	8.53	42	6.12	7.72
DK DON'T KNOW	40	7.41	48	7.19	38	5.54	6.69
NO RESPONSE	70	12.96	90	13.47	74	10.79	12.59

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
12J RESOURCE USED FOR QUES RE OCC WHICH MEET STUDENT'S SPECIFICATIONS							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	106	19.63	114	17.07	115	16.76	17.18
A2 DICTIONARY OF OCCUP. TITLES	16	2.96	17	2.54	13	1.90	2.38
A3 GUIDE FOR OCCUP. EXPLORATION	3	0.56	4	0.60	2	0.29	0.50
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	8	1.48	13	1.95	7	1.02	1.62
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	2	0.37	1	0.15	0	0.0	0.12
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
A7 THE NATIONAL APPRENTICESHIP PROGRAM	0	0.0	0	0.0	0	0.0	0.0
A8 OCCUP. HANDBOOKS FOR THE MILITARY	2	0.37	3	0.45	1	0.15	0.35
A9 WORKER TRAIT GROUP GUIDE	3	0.56	5	0.75	4	0.58	0.68
A10 OTHER (BOUND REFERENCES)	1	0.19	4	0.60	4	0.58	0.56
B1 B'NAI B'RITH BRIEFS	0	0.0	0	0.0	0	0.0	0.0
B2 CAREERS, INC.	4	0.74	5	0.75	8	1.17	0.88
B3 CATALYST PAMPHLETS	1	0.19	0	0.0	0	0.0	0.02
B4 CHRONICLE GUIDANCE	10	1.85	20	2.99	23	3.35	3.00
B5 SRA BRIEFS	9	1.67	9	1.35	13	1.90	1.54
B6 OCCUP. GUIDANCE BRIEFS	0	0.0	2	0.30	6	0.87	0.45
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	0	0.0	1	0.15	0.04
B8 JOB FACT SHEETS	3	0.56	2	0.30	1	0.15	0.27
B9 VOCATIONAL BIOGRAPHIES	1	0.19	4	0.60	2	0.29	0.47
B10 OCCUP. BRIEFS PUBLISHED BY STATE	10	1.85	18	2.69	8	1.17	2.15
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	0	0.0	1	0.15	2	0.29	0.18
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	3	0.56	0	0.0	1	0.15	0.09
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	6	1.11	6	0.90	10	1.46	1.09
C1 CAREER WORLD	1	0.19	1	0.15	1	0.15	0.15
C2 OCCUP. IN DEMAND	2	0.37	1	0.15	1	0.15	0.17
C3 OCCUP. OUTLOOK QUARTERLY	4	0.74	4	0.60	5	0.73	0.65
C4 REAL WORLD	1	0.19	1	0.15	0	0.0	0.11
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	0	0.0	0	0.0	0.0
C6 OTHER (PERIODICALS)	2	0.37	2	0.30	1	0.15	0.26
D1 OPPURTUNITIES IN . . .	2	0.37	0	0.0	0	0.0	0.03
D2 YOUR CAREER IN . . .	0	0.0	1	0.15	1	0.15	0.14
D3 YOUR FUTURE IN . . .	1	0.19	1	0.15	1	0.15	0.15
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	3	0.56	2	0.30	0	0.0	0.23
E1 DIRECTORIES OF BUSINESSES	0	0.0	4	0.60	3	0.44	0.50
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	1	0.19	2	0.30	2	0.29	0.29
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	1	0.15	0	0.0	0.09
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	0	0.0	1	0.15	1	0.15	0.14
F2 VOCATIONAL SCHOOL DIRECTORIES	5	0.93	1	0.15	0	0.0	0.17
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	1	0.19	1	0.15	0	0.0	0.11

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12J RESOURCE USED FOR QUES RE OCC WHICH MEET STUDENT'S SPECIFICATIONS							
G1 CHOICES	1	0.19	2	0.30	1	0.15	0.24
G2 COIN	11	2.04	7	1.05	12	1.75	1.35
G3 CVIS	6	1.11	0	0.0	5	0.73	0.32
G4 DISCOVER	3	0.56	1	0.15	0	0.0	0.14
G5 GIS	35	6.48	23	3.44	66	9.62	5.60
G6 YOUR STATE SYSTEM	15	2.78	35	5.24	48	7.00	5.56
G7 YOUR SCHOOL OR COUNTY SYSTEM	3	0.56	1	0.15	7	1.02	0.45
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	3	0.56	0	0.0	3	0.44	0.18
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	1	0.19	0	0.0	0	0.0	0.02
H2 EXTERNALLY PRODUCED A-V EQUIP.	1	0.19	7	1.05	1	0.15	0.69
H3 OTHER (AUDIO-VISUAL)	1	0.19	2	0.30	0	0.0	0.20
I1 STATE OR REGIONAL MICROFILM	20	3.70	33	4.94	30	4.37	4.65
I2 LOCAL MICROFILM	4	0.74	0	0.0	2	0.29	0.15
I3 OTHER (MICROFORMS)	2	0.37	0	0.0	1	0.15	0.08
J1 KEY OR NEEDLESORT	7	1.30	22	3.29	6	0.87	2.37
J2 SCORE INTERP GUIDES FOR INVENTORIES	3	0.56	3	0.45	4	0.58	0.50
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	1	0.19	6	0.90	7	1.02	0.87
K1 COURSES IN CAREER PLANNING	2	0.37	0	0.0	2	0.29	0.12
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	5	0.93	1	0.15	4	0.58	0.35
K3 EXPLORATORY WORK EXPERIENCE	0	0.0	1	0.15	1	0.15	0.14
K4 CAREER DAYS, SPEAKERS, ETC.	5	0.93	4	0.60	6	0.87	0.71
K5 CAREER CLUBS	0	0.0	0	0.0	0	0.0	0.0
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	0	0.0	0	0.0	0.0
K7 JOB SITE TOURS	1	0.19	3	0.45	0	0.0	0.29
K8 JOB SHADOWING	0	0.0	1	0.15	1	0.15	0.14
K9 CONFERENCES WITH COMMUNITY REPS	7	1.30	4	0.60	8	1.17	0.83
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	2	0.37	1	0.15	3	0.44	0.26
L1 SIMULATIONS	0	0.0	1	0.15	1	0.15	0.14
M1 CONFERENCES WITH COUNSELORS	5	0.93	10	1.50	7	1.02	1.30
M2 ASSISTANCE FROM OTHER STAFF	0	0.0	0	0.0	0	0.0	0.0
A99 BOUND REFERENCES	2	0.37	1	0.15	2	0.29	0.21
B99 OCCUPATIONAL BRIEFS AND KITS	0	0.0	1	0.15	0	0.0	0.09
C99 PERIODICALS	0	0.0	0	0.0	0	0.0	0.0
D99 SERIES OF BOOKS ON INDIV. OCC.	1	0.19	1	0.15	0	0.0	0.11
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	1	0.15	0	0.0	0.09
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	1	0.19	0	0.0	1	0.15	0.06
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
12J RESOURCE USED FOR QUES RE OCC WHICH MEET STUDENT'S SPECIFICATIONS							
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	0	0.0	0	0.0	0	0.0	0.0
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	34	6.30	46	6.89	41	5.98	6.55
DK DON'T KNOW	61	11.30	87	13.02	85	12.39	12.66
NO RESPONSE	86	15.93	112	16.77	94	13.70	15.74
13A RESOURCE USED TO AROUSE STUDENT INTEREST IN EXPLORING OCC INFO							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	79	14.63	80	11.98	80	11.66	12.10
A2 DICTIONARY OF OCCUP. TITLES	17	3.15	15	2.25	11	1.60	2.13
A3 GUIDE FOR OCCUP. EXPLORATION	11	2.04	10	1.50	1	0.15	1.13
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	11	2.04	17	2.54	13	1.90	2.30
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	1	0.19	0	0.0	2	0.29	0.11
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
A7 THE NATIONAL APPRENTICESHIP PROGRAM	0	0.0	0	0.0	0	0.0	0.0
A8 OCCUP. HANDBOOKS FOR THE MILITARY	2	0.37	0	0.0	0	0.0	0.03
A9 WORKER TRAIT GROUP GUIDE	3	0.56	2	0.30	9	1.31	0.63
A10 OTHER (BOUND REFERENCES)	0	0.0	5	0.75	5	0.73	0.68
B1 B'NAI B'RITH BRIEFS	1	0.19	0	0.0	0	0.0	0.02
B2 CAREERS, INC.	8	1.48	14	2.10	16	2.33	2.11
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	10	1.85	18	2.69	20	2.92	2.69
B5 SRA BRIEFS	13	2.41	18	2.69	21	3.06	2.78
B6 OCCUP. GUIDANCE BRIEFS	2	0.37	4	0.60	1	0.15	0.44
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	0	0.0	0	0.0	0.0
B8 JOB FACT SHEETS	1	0.19	0	0.0	0	0.0	0.02
B9 VOCATIONAL BIOGRAPHIES	2	0.37	2	0.30	6	0.87	0.48
B10 OCCUP. BRIEFS PUBLISHED BY STATE	3	0.56	6	0.90	0	0.0	0.59
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	1	0.19	6	0.90	1	0.15	0.60
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	4	0.74	0	0.0	2	0.29	0.15
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	4	0.74	3	0.45	9	1.31	0.74
C1 CAREER WORLD	20	3.70	22	3.29	18	2.62	3.12
C2 OCCUP. IN DEMAND	2	0.37	3	0.45	0	0.0	0.30
C3 OCCUP. OUTLOOK QUARTERLY	0	0.0	2	0.30	1	0.15	0.23
C4 REAL WORLD	4	0.74	9	1.35	4	0.58	1.06
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	0	0.0	0	0.0	0.0
C6 OTHER (PERIODICALS)	2	0.37	0	0.0	2	0.29	0.12

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13A RESOURCE USED TO AROUSE STUDENT INTEREST IN EXPLORING OCC INFO							
D1 OPPURTUNITIES IN . . .	1	0.19	5	0.75	2	0.29	0.56
D2 YOUR CAREER IN . . .	4	0.74	3	0.45	2	0.29	0.43
D3 YOUR FUTURE IN . . .	2	0.37	1	0.15	2	0.29	0.21
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	2	0.37	1	0.15	0	0.0	0.12
E1 DIRECTORIES OF BUSINESSES	0	0.0	0	0.0	0	0.0	0.0
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	0	0.0	2	0.30	1	0.15	0.23
E3 OTHER (LIST OF EMPLOYERS)	1	0.19	1	0.15	0	0.0	0.11
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	2	0.37	0	0.0	0	0.0	0.03
F2 VOCATIONAL SCHOOL DIRECTORIES	0	0.0	3	0.45	1	0.15	0.32
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	0	0.0	1	0.15	2	0.29	0.18
G1 CHOICES	0	0.0	1	0.15	0	0.0	0.09
G2 COIN	9	1.67	6	0.90	6	0.87	0.96
G3 CVIS	8	1.48	2	0.30	8	1.17	0.67
G4 DISCOVER	4	0.74	1	0.15	2	0.29	0.25
G5 GIS	27	5.00	18	2.69	52	7.58	4.39
G6 YOUR STATE SYSTEM	11	2.04	30	4.49	52	7.58	5.22
G7 YOUR SCHOOL OR COUNTY SYSTEM	4	0.74	1	0.15	6	0.87	0.42
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	0	0.0	3	0.45	4	0.58	0.45
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	9	1.67	2	0.30	7	1.02	0.64
H2 EXTERNALLY PRODUCED A-V EQUIP.	29	5.37	41	6.14	34	4.96	5.70
H3 OTHER (AUDIO-VISUAL)	1	0.19	3	0.45	0	0.0	0.29
I1 STATE OR REGIONAL MICROFILM	14	2.59	33	4.94	31	4.52	4.60
I2 LOCAL MICROFILM	1	0.19	0	0.0	1	0.15	0.06
I3 OTHER (MICROFORMS)	0	0.0	1	0.15	2	0.29	0.18
J1 KEY OR NEEDLESORT	4	0.74	23	3.44	6	0.87	2.41
J2 SCORE INTERP GUIDES FOR INVENTORIES	4	0.74	14	2.10	20	2.92	2.23
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	1	0.19	6	0.90	3	0.44	0.69
K1 COURSES IN CAREER PLANNING	20	3.70	21	3.14	31	4.52	3.61
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	22	4.07	22	3.29	31	4.52	3.74
K3 EXPLORATORY WORK EXPERIENCE	4	0.74	1	0.15	8	1.17	0.51
K4 CAREER DAYS, SPEAKERS, ETC.	46	8.52	37	5.54	49	7.14	6.29
K5 CAREER CLUBS	2	0.37	0	0.0	0	0.0	0.03
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	1	0.19	0	0.0	0	0.0	0.02
K7 JOB SITE TOURS	9	1.67	9	1.35	3	0.44	1.09
K8 JOB SHADOWING	0	0.0	1	0.15	3	0.44	0.22
K9 CONFERENCES WITH COMMUNITY REPS	5	0.93	3	0.45	1	0.15	0.40
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	5	0.93	8	1.20	11	1.60	1.30
L1 SIMULATIONS	2	0.37	2	0.30	2	0.29	0.30

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13A RESOURCE USED TO AROUSE STUDENT INTEREST IN EXPLORING OCC INFO							
M1 CONFERENCES WITH COUNSELORS	4	0.74	13	1.95	15	2.19	1.91
M2 ASSISTANCE FROM OTHER STAFF	1	0.19	3	0.45	1	0.15	0.33
A99 BOUND REFERENCES	2	0.37	0	0.0	0	0.0	0.03
B99 OCCUPATIONAL BRIEFS AND KITS	0	0.0	0	0.0	1	0.15	0.04
C99 PERIODICALS	0	0.0	0	0.0	0	0.0	0.0
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	1	0.19	0	0.0	0	0.0	0.02
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	2	0.37	3	0.45	1	0.15	0.35
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	9	1.67	12	1.80	7	1.02	1.54
DK DON'T KNOW	15	2.78	20	2.99	11	1.60	2.55
NO RESPONSE	51	9.44	75	11.23	45	6.56	9.63
13B RESOURCE USED TO FAMILIARIZE STUDENT WITH MANY OCCUPATIONS							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	120	22.22	164	24.55	180	26.24	24.84
A2 DICTIONARY OF OCCUP. TITLES	59	10.93	56	8.38	55	8.02	8.49
A3 GUIDE FOR OCCUP. EXPLORATION	3	0.56	5	0.75	2	0.29	0.59
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	23	4.26	27	4.04	24	3.50	3.89
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	0	0.0	1	0.15	0	0.0	0.09
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
A7 THE NATIONAL APPRENTICESHIP PROGRAM	0	0.0	0	0.0	0	0.0	0.0
A8 OCCUP. HANDBOOKS FOR THE MILITARY	3	0.56	1	0.15	1	0.15	0.18
A9 WORKER TRAIT GROUP GUIDE	3	0.56	4	0.60	8	1.17	0.77
A10 OTHER (BOUND REFERENCES)	0	0.0	3	0.45	0	0.0	0.27
B1 B'NAI B'RITH BRIEFS	2	0.37	0	0.0	1	0.15	0.08
B2 CAREERS, INC.	13	2.41	14	2.10	11	1.60	1.97
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	1	0.15	0.04
B4 CHRONICLE GUIDANCE	16	2.96	26	3.89	29	4.23	3.91
B5 SRA BRIEFS	19	3.52	20	2.99	19	2.77	2.97
B6 OCCUP. GUIDANCE BRIEFS	3	0.56	4	0.60	9	1.31	0.81
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	0	0.0	0	0.0	0.0
B8 JOB FACT SHEETS	0	0.0	0	0.0	2	0.29	0.09
B9 VOCATIONAL BIOGRAPHIES	2	0.37	5	0.75	5	0.73	0.71

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13B RESOURCE USED TO FAMILIARIZE STUDENT WITH MANY OCCUPATIONS							
B10 OCCUP. BRIEFS PUBLISHED BY STATE	4	0.74	7	1.05	2	0.29	0.79
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	2	0.37	4	0.60	1	0.15	0.44
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	0	0.0	0	0.0	1	0.15	0.04
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	5	0.93	8	1.20	8	1.17	1.16
C1 CAREER WORLD	5	0.93	2	0.30	7	1.02	0.58
C2 OCCUP. IN DEMAND	2	0.37	0	0.0	0	0.0	0.03
C3 OCCUP. OUTLOOK QUARTERLY	3	0.56	2	0.30	3	0.44	0.36
C4 REAL WORLD	1	0.19	5	0.75	1	0.15	0.51
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	0	0.0	0	0.0	0.0
C6 OTHER (PERIODICALS)	2	0.37	1	0.15	0	0.0	0.12
D1 OPPURTUNITIES IN . . .	0	0.0	0	0.0	1	0.15	0.04
D2 YOUR CAREER IN . . .	1	0.19	1	0.15	2	0.29	0.20
D3 YOUR FUTURE IN . . .	0	0.0	1	0.15	2	0.29	0.18
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	0	0.0	1	0.15	0	0.0	0.09
E1 DIRECTORIES OF BUSINESSES	1	0.19	0	0.0	1	0.15	0.06
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	0	0.0	0	0.0	0	0.0	0.0
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	2	0.30	2	0.29	0.27
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	2	0.37	0	0.0	0	0.0	0.03
F2 VOCATIONAL SCHOOL DIRECTORIES	2	0.37	5	0.75	2	0.29	0.57
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	0	0.0	2	0.30	1	0.15	0.23
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	2	0.37	2	0.30	3	0.44	0.35
G3 CVIS	3	0.56	1	0.15	7	1.02	0.45
G4 DISCOVER	2	0.37	0	0.0	1	0.15	0.08
G5 GIS	14	2.59	10	1.50	33	4.81	2.61
G6 YOUR STATE SYSTEM	6	1.11	18	2.69	22	3.21	2.71
G7 YOUR SCHOOL OR COUNTY SYSTEM	3	0.56	2	0.30	4	0.58	0.41
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	1	0.19	2	0.30	3	0.44	0.33
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	3	0.56	0	0.0	4	0.58	0.23
H2 EXTERNALLY PRODUCED A-V EQUIP.	20	3.70	26	3.89	27	3.94	3.89
H3 OTHER (AUDIO-VISUAL)	3	0.56	0	0.0	1	0.15	0.09
I1 STATE OR REGIONAL MICROFILM	11	2.04	41	6.14	17	2.48	4.65
I2 LOCAL MICROFILM	2	0.37	0	0.0	0	0.0	0.03
I3 OTHER (MICROFORMS)	1	0.19	0	0.0	1	0.15	0.06
J1 KEY OR NEEDLESORT	1	0.19	12	1.80	2	0.29	1.19
J2 SCORE INTERP GUIDES FOR INVENTORIES	1	0.19	2	0.30	5	0.73	0.42
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	1	0.19	2	0.30	1	0.15	0.24

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13B RESOURCE USED TO FAMILIARIZE STUDENT WITH MANY OCCUPATIONS							
K1 COURSES IN CAREER PLANNING	19	3.52	20	2.99	28	4.08	3.37
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	21	3.89	26	3.89	37	5.39	4.35
K3 EXPLORATORY WORK EXPERIENCE	5	0.93	0	0.0	0	0.0	0.08
K4 CAREER DAYS, SPEAKERS, ETC.	39	7.22	26	3.89	40	5.83	4.78
K5 CAREER CLUBS	1	0.19	1	0.15	0	0.0	0.11
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	0	0.0	0	0.0	0.0
K7 JOB SITE TOURS	3	0.56	5	0.75	2	0.29	0.59
K8 JOB SHADOWING	0	0.0	0	0.0	1	0.15	0.04
K9 CONFERENCES WITH COMMUNITY REPS	2	0.37	1	0.15	2	0.29	0.21
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	4	0.74	1	0.15	9	1.31	0.56
L1 SIMULATIONS	4	0.74	4	0.60	0	0.0	0.43
M1 CONFERENCES WITH COUNSELORS	3	0.56	4	0.60	4	0.58	0.59
M2 ASSISTANCE FROM OTHER STAFF	0	0.0	1	0.15	0	0.0	0.09
A99 BOUND REFERENCES	3	0.56	1	0.15	0	0.0	0.14
B99 OCCUPATIONAL BRIEFS AND KITS	1	0.19	2	0.30	0	0.0	0.20
C99 PERIODICALS	0	0.0	0	0.0	0	0.0	0.0
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	1	0.15	0.04
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	1	0.19	0	0.0	0	0.0	0.02
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	1	0.19	0	0.0	1	0.15	0.06
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	6	1.11	4	0.60	9	1.31	0.86
DK DON'T KNOW	12	2.22	15	2.25	2	0.29	1.64
NO RESPONSE	45	8.33	68	10.18	38	5.54	8.58
13C RESOURCE USED TO GIVE DETAILED INFO ABOUT A FAMILIAR OCCUPATION							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	107	19.81	107	16.02	120	17.49	16.79
A2 DICTIONARY OF OCCUP. TITLES	34	6.30	33	4.94	32	4.66	4.97
A3 GUIDE FOR OCCUP. EXPLORATION	7	1.30	3	0.45	1	0.15	0.43
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	22	4.07	25	3.74	17	2.48	3.38
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	0	0.0	0	0.0	0	0.0	0.0
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
A7 THE NATIONAL APPRENTICESHIP PROGRAM	1	0.19	0	0.0	0	0.0	0.02
A8 OCCUP. HANDBOOKS FOR THE MILITARY	1	0.19	0	0.0	1	0.15	0.06

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13C RESOURCE USED TO GIVE DETAILED INFO ABOUT A FAMILIAR OCCUPATION							
A9 WORKER TRAIT GROUP GUIDE	1	0.19	2	0.30	1	0.15	0.24
A10 OTHER (BOUND REFERENCES)	2	0.37	3	0.45	3	0.44	0.44
B1 B'NAI B'RITH BRIEFS	0	0.0	0	0.0	2	0.29	0.09
B2 CAREERS, INC.	13	2.41	16	2.40	14	2.04	2.29
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	1	0.15	0.04
B4 CHRONICLE GUIDANCE	30	5.56	57	8.53	64	9.33	8.51
B5 SRA BRIEFS	15	2.78	21	3.14	17	2.48	2.90
B6 OCCUP. GUIDANCE BRIEFS	2	0.37	6	0.90	7	1.02	0.89
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	1	0.15	3	0.44	0.22
B8 JOB FACT SHEETS	2	0.37	1	0.15	4	0.58	0.30
B9 VOCATIONAL BIOGRAPHIES	2	0.37	4	0.60	9	1.31	0.80
B10 OCCUP. BRIEFS PUBLISHED BY STATE	5	0.93	12	1.80	12	1.75	1.70
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	4	0.74	19	2.84	18	2.62	2.59
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	2	0.37	5	0.75	3	0.44	0.62
B13 WRITE-UPS BY FORMER STUDENTS	1	0.19	1	0.15	0	0.0	0.11
B14 OTHER (OCCUP. BRIEFS AND KITS)	1	0.19	8	1.20	4	0.58	0.92
C1 CAREER WORLD	2	0.37	3	0.45	0	0.0	0.30
C2 OCCUP. IN DEMAND	3	0.56	0	0.0	1	0.15	0.09
C3 OCCUP. OUTLOOK QUARTERLY	2	0.37	2	0.30	3	0.44	0.35
C4 REAL WORLD	1	0.19	0	0.0	1	0.15	0.06
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	0	0.0	1	0.15	0.04
C6 OTHER (PERIODICALS)	1	0.19	0	0.0	2	0.29	0.11
D1 OPPURTUNITIES IN . . .	9	1.67	9	1.35	15	2.19	1.63
D2 YOUR CAREER IN . . .	7	1.30	11	1.65	7	1.02	1.42
D3 YOUR FUTURE IN . . .	11	2.04	6	0.90	16	2.33	1.44
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	1	0.19	1	0.15	2	0.29	0.20
E1 DIRECTORIES OF BUSINESSES	0	0.0	0	0.0	0	0.0	0.0
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	6	1.11	3	0.45	4	0.58	0.55
E3 OTHER (LIST OF EMPLOYERS)	1	0.19	2	0.30	1	0.15	0.24
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	0	0.0	1	0.15	0	0.0	0.09
F2 VOCATIONAL SCHOOL DIRECTORIES	1	0.19	3	0.45	0	0.0	0.29
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	1	0.15	0	0.0	0.09
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	0	0.0	1	0.15	0	0.0	0.09
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	9	1.67	6	0.90	6	0.87	0.96
G3 CVIS	2	0.37	1	0.15	3	0.44	0.26
G4 DISCOVER	2	0.37	0	0.0	0	0.0	0.03
G5 GIS	26	4.81	12	1.80	40	5.83	3.30
G6 YOUR STATE SYSTEM	9	1.67	26	3.89	41	5.98	4.33

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13C RESOURCE USED TO GIVE DETAILED INFO ABOUT A FAMILIAR OCCUPATION							
G7 YOUR SCHOOL OR COUNTY SYSTEM	5	0.93	1	0.15	2	0.29	0.26
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	3	0.56	0	0.0	0	0.0	0.05
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	1	0.19	1	0.15	0	0.0	0.11
H2 EXTERNALLY PRODUCED A-V EQUIP.	7	1.30	7	1.05	9	1.31	1.15
H3 OTHER (AUDIO-VISUAL)	1	0.19	1	0.15	1	0.15	0.15
I1 STATE OR REGIONAL MICROFILM	17	3.15	47	7.04	31	4.52	5.91
I2 LOCAL MICROFILM	2	0.37	0	0.0	0	0.0	0.03
I3 OTHER (MICROFORMS)	1	0.19	2	0.30	1	0.15	0.24
J1 KEY OR NEEDLESORT	0	0.0	6	0.90	0	0.0	0.54
J2 SCORE INTERP GUIDES FOR INVENTORIES	0	0.0	0	0.0	0	0.0	0.0
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	0	0.0	3	0.45	0	0.0	0.27
K1 COURSES IN CAREER PLANNING	6	1.11	5	0.75	5	0.73	0.77
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	4	0.74	8	1.20	6	0.87	1.06
K3 EXPLORATORY WORK EXPERIENCE	8	1.48	7	1.05	9	1.31	1.17
K4 CAREER DAYS, SPEAKERS, ETC.	11	2.04	18	2.69	25	3.64	2.93
K5 CAREER CLUBS	0	0.0	1	0.15	3	0.44	0.22
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	0	0.0	1	0.15	0.04
K7 JOB SITE TOURS	15	2.78	8	1.20	10	1.46	1.42
K8 JOB SHADOWING	7	1.30	8	1.20	14	2.04	1.46
K9 CONFERENCES WITH COMMUNITY REPS	9	1.67	10	1.50	16	2.33	1.77
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	2	0.37	1	0.15	3	0.44	0.26
L1 SIMULATIONS	1	0.19	0	0.0	1	0.15	0.06
M1 CONFERENCES WITH COUNSELORS	6	1.11	12	1.80	7	1.02	1.50
M2 ASSISTANCE FROM OTHER STAFF	1	0.19	0	0.0	0	0.0	0.02
A99 BOUND REFERENCES	2	0.37	1	0.15	1	0.15	0.17
B99 OCCUPATIONAL BRIEFS AND KITS	1	0.19	0	0.0	0	0.0	0.02
C99 PERIODICALS	0	0.0	0	0.0	0	0.0	0.0
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	2	0.30	0	0.0	0.18
E99 LIST OF EMPLOYERS	1	0.19	0	0.0	0	0.0	0.02
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	1	0.19	0	0.0	1	0.15	0.06
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	1	0.19	0	0.0	0	0.0	0.02
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	10	1.85	8	1.20	11	1.60	1.38
DK DON'T KNOW	17	3.15	23	3.44	12	1.75	2.89
NO RESPONSE	55	10.19	76	11.38	41	5.98	9.60

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
130 RESOURCE USED TO SUGGEST UNFAMILIAR OCC FOR STUDENT TO CONSIDER							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	96	17.78	115	17.22	128	18.66	17.69
A2 DICTIONARY OF OCCUP. TITLES	40	7.41	41	6.14	45	6.56	6.37
A3 GUIDE FOR OCCUP. EXPLORATION	5	0.93	7	1.05	2	0.29	0.80
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	17	3.15	27	4.04	21	3.06	3.66
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	4	0.74	1	0.15	3	0.44	0.29
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
A7 THE NATIONAL APPRENTICESHIP PROGRAM	0	0.0	0	0.0	0	0.0	0.0
A8 OCCUP. HANDBOOKS FOR THE MILITARY	0	0.0	0	0.0	1	0.15	0.04
A9 WORKER TRAIT GROUP GUIDE	2	0.37	3	0.45	7	1.02	0.62
A10 OTHER (BOUND REFERENCES)	0	0.0	6	0.90	2	0.29	0.63
B1 B'NAI B'RITH BRIEFS	1	0.19	0	0.0	1	0.15	0.06
B2 CAREERS, INC.	6	1.11	18	2.69	19	2.77	2.58
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	20	3.70	23	3.44	30	4.37	3.75
B5 SRA BRIEFS	13	2.41	21	3.14	15	2.19	2.78
B6 OCCUP. GUIDANCE BRIEFS	3	0.56	4	0.60	8	1.17	0.77
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	0	0.0	0	0.0	0.0
B8 JOB FACT SHEETS	1	0.19	2	0.30	2	0.29	0.29
B9 VOCATIONAL BIOGRAPHIES	3	0.56	3	0.45	14	2.04	0.95
B10 OCCUP. BRIEFS PUBLISHED BY STATE	2	0.37	13	1.95	5	0.73	1.43
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	9	1.67	6	0.90	6	0.87	0.96
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	0	0.0	4	0.60	1	0.15	0.41
B13 WRITE-UPS BY FORMER STUDENTS	2	0.37	0	0.0	0	0.0	0.03
B14 OTHER (OCCUP. BRIEFS AND KITS)	7	1.30	6	0.90	11	1.60	1.15
C1 CAREER WORLD	9	1.67	11	1.65	8	1.17	1.50
C2 OCCUP. IN DEMAND	7	1.30	1	0.15	1	0.15	0.25
C3 OCCUP. OUTLOOK QUARTERLY	3	0.56	1	0.15	4	0.58	0.32
C4 REAL WORLD	2	0.37	3	0.45	2	0.29	0.39
C5 CIVIL SERVICE EXAM BULLETINS	1	0.19	0	0.0	0	0.0	0.02
C6 OTHER (PERIODICALS)	1	0.19	1	0.15	0	0.0	0.11
D1 OPPURTUNITIES IN . . .	4	0.74	4	0.60	5	0.73	0.65
D2 YOUR CAREER IN . . .	3	0.56	2	0.30	1	0.15	0.27
D3 YOUR FUTURE IN . . .	3	0.56	3	0.45	2	0.29	0.41
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	1	0.19	1	0.15	0	0.0	0.11
E1 DIRECTORIES OF BUSINESSES	1	0.19	0	0.0	1	0.15	0.06
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	1	0.19	0	0.0	2	0.29	0.11
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	0	0.0	0	0.0	0.0
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	0	0.0	2	0.30	0	0.0	0.18
F2 VOCATIONAL SCHOOL DIRECTORIES	4	0.74	3	0.45	3	0.44	0.47
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	0	0.0	3	0.45	2	0.29	0.36

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13D RESOURCE USED TO SUGGEST UNFAMILIAR OCC FOR STUDENT TO CONSIDER							
G1 CHOICES	1	0.19	0	0.0	0	0.0	0.02
G2 COIN	6	1.11	5	0.75	6	0.87	0.82
G3 CVIS	5	0.93	1	0.15	5	0.73	0.40
G4 DISCOVER	2	0.37	2	0.30	2	0.29	0.30
G5 GIS	18	3.33	17	2.54	42	6.12	3.71
G6 YOUR STATE SYSTEM	7	1.30	22	3.29	36	5.25	3.71
G7 YOUR SCHOOL OR COUNTY SYSTEM	3	0.56	0	0.0	5	0.73	0.27
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	1	0.19	1	0.15	0	0.0	0.11
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	2	0.37	2	0.30	5	0.73	0.44
H2 EXTERNALLY PRODUCED A-V EQUIP.	16	2.96	17	2.54	13	1.90	2.38
H3 OTHER (AUDIO-VISUAL)	1	0.19	3	0.45	0	0.0	0.29
I1 STATE OR REGIONAL MICROFILM	12	2.22	29	4.34	19	2.77	3.67
I2 LOCAL MICROFILM	2	0.37	0	0.0	1	0.15	0.08
I3 OTHER (MICROFORMS)	0	0.0	0	0.0	0	0.0	0.0
J1 KEY OR NEEDLESORT	3	0.56	16	2.40	6	0.87	1.76
J2 SCORE INTERP GUIDES FOR INVENTORIES	3	0.56	7	1.05	17	2.48	1.44
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	1	0.19	4	0.60	1	0.15	0.42
K1 COURSES IN CAREER PLANNING	10	1.85	9	1.35	18	2.62	1.78
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	10	1.85	14	2.10	8	1.17	1.79
K3 EXPLORATORY WORK EXPERIENCE	3	0.56	1	0.15	1	0.15	0.18
K4 CAREER DAYS, SPEAKERS, ETC.	25	4.63	16	2.40	14	2.04	2.48
K5 CAREER CLUBS	0	0.0	0	0.0	0	0.0	0.0
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	2	0.37	0	0.0	1	0.15	0.08
K7 JOB SITE TOURS	7	1.30	6	0.90	6	0.87	0.93
K8 JOB SHADOWING	1	0.19	1	0.15	1	0.15	0.15
K9 CONFERENCES WITH COMMUNITY REPS	4	0.74	3	0.45	2	0.29	0.43
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	3	0.56	6	0.90	10	1.46	1.04
L1 SIMULATIONS	1	0.19	3	0.45	0	0.0	0.29
M1 CONFERENCES WITH COUNSELORS	18	3.33	25	3.74	23	3.35	3.58
M2 ASSISTANCE FROM OTHER STAFF	2	0.37	0	0.0	1	0.15	0.08
A99 BOUND REFERENCES	1	0.19	0	0.0	1	0.15	0.06
B99 OCCUPATIONAL BRIEFS AND KITS	1	0.19	1	0.15	0	0.0	0.11
C99 PERIODICALS	1	0.19	0	0.0	1	0.15	0.06
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	1	0.15	0	0.0	0.09
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	1	0.19	0	0.0	1	0.15	0.06
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13D RESOURCE USED TO SUGGEST UNFAMILIAR OCC FOR STUDENT TO CONSIDER							
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	1	0.19	0	0.0	1	0.15	0.06
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	11	2.04	7	1.05	14	2.04	1.44
DK DON'T KNOW	22	4.07	31	4.64	19	2.77	4.01
NO RESPONSE	62	11.48	83	12.43	54	7.87	10.93
13E RESOURCE USED TO ENABLE POOR READERS TO GET INFO ABOUT OCCUPATIONS							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	20	3.70	27	4.04	23	3.35	3.80
A2 DICTIONARY OF OCCUP. TITLES	3	0.56	1	0.15	2	0.29	0.23
A3 GUIDE FOR OCCUP. EXPLORATION	0	0.0	1	0.15	0	0.0	0.09
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	3	0.56	3	0.45	4	0.58	0.50
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	2	0.37	0	0.0	0	0.0	0.03
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	4	0.60	1	0.15	0.41
A7 THE NATIONAL APPRENTICESHIP PROGRAM	0	0.0	0	0.0	0	0.0	0.0
A8 OCCUP. HANDBOOKS FOR THE MILITARY	2	0.37	0	0.0	0	0.0	0.03
A9 WORKER TRAIT GROUP GUIDE	2	0.37	1	0.15	1	0.15	0.17
A10 OTHER (BOUND REFERENCES)	2	0.37	4	0.60	2	0.29	0.48
B1 B'NAI B'RITH BRIEFS	0	0.0	0	0.0	0	0.0	0.0
B2 CAREERS, INC.	15	2.78	20	2.99	16	2.33	2.77
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	5	0.93	14	2.10	6	0.87	1.62
B5 SRA BRIEFS	22	4.07	14	2.10	26	3.79	2.79
B6 OCCUP. GUIDANCE BRIEFS	4	0.74	2	0.30	7	1.02	0.56
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	0	0.0	0	0.0	0.0
B8 JOB FACT SHEETS	0	0.0	0	0.0	0	0.0	0.0
B9 VOCATIONAL BIOGRAPHIES	3	0.56	2	0.30	5	0.73	0.45
B10 OCCUP. BRIEFS PUBLISHED BY STATE	1	0.19	4	0.60	1	0.15	0.42
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	2	0.37	2	0.30	0	0.0	0.21
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	0	0.0	2	0.30	1	0.15	0.23
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	7	1.30	9	1.35	16	2.33	1.64
C1 CAREER WORLD	17	3.15	20	2.99	25	3.64	3.20
C2 OCCUP. IN DEMAND	1	0.19	0	0.0	0	0.0	0.02
C3 OCCUP. OUTLOOK QUARTERLY	1	0.19	0	0.0	1	0.15	0.06
C4 REAL WORLD	9	1.67	12	1.80	15	2.19	1.90
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	0	0.0	0	0.0	0.0
C6 OTHER (PERIODICALS)	1	0.19	1	0.15	1	0.15	0.15

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13E RESOURCE USED TO ENABLE POOR READERS TO GET INFO ABOUT OCCUPATIONS							
D1 OPPURTUNITIES IN . . .	1	0.19	2	0.30	0	0.0	0.20
D2 YOUR CAREER IN . . .	1	0.19	1	0.15	2	0.29	0.20
D3 YOUR FUTURE IN . . .	3	0.56	3	0.45	3	0.44	0.45
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	4	0.74	5	0.75	3	0.44	0.65
E1 DIRECTORIES OF BUSINESSES	0	0.0	0	0.0	0	0.0	0.0
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	4	0.74	0	0.0	2	0.29	0.15
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	1	0.15	0	0.0	0.09
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	0	0.0	0	0.0	1	0.15	0.04
F2 VOCATIONAL SCHOOL DIRECTORIES	3	0.56	2	0.30	2	0.29	0.32
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	1	0.19	1	0.15	0	0.0	0.11
G1 CHOICES	1	0.19	0	0.0	0	0.0	0.02
G2 COIN	6	1.11	2	0.30	1	0.15	0.32
G3 CVIS	5	0.93	0	0.0	4	0.58	0.26
G4 DISCOVER	3	0.56	0	0.0	0	0.0	0.05
G5 GIS	15	2.78	9	1.35	29	4.23	2.36
G6 YOUR STATE SYSTEM	8	1.48	20	2.99	23	3.35	2.97
G7 YOUR SCHOOL OR COUNTY SYSTEM	4	0.74	1	0.15	1	0.15	0.20
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	0	0.0	0	0.0	2	0.29	0.09
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	16	2.96	7	1.05	11	1.60	1.39
H2 EXTERNALLY PRODUCED A-V EQUIP.	86	15.93	92	13.77	122	17.78	15.18
H3 OTHER (AUDIO-VISUAL)	3	0.56	2	0.30	4	0.58	0.41
I1 STATE OR REGIONAL MICROFILM	11	2.04	32	4.79	31	4.52	4.46
I2 LOCAL MICROFILM	3	0.56	2	0.30	1	0.15	0.27
I3 OTHER (MICROFORMS)	0	0.0	2	0.30	3	0.44	0.32
J1 KEY OR NEEDLESORT	1	0.19	12	1.80	1	0.15	1.15
J2 SCORE INTERP GUIDES FOR INVENTORIES	0	0.0	2	0.30	1	0.15	0.23
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	0	0.0	1	0.15	5	0.73	0.31
K1 COURSES IN CAREER PLANNING	12	2.22	8	1.20	15	2.19	1.59
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	10	1.85	11	1.65	12	1.75	1.69
K3 EXPLORATORY WORK EXPERIENCE	5	0.93	3	0.45	9	1.31	0.76
K4 CAREER DAYS, SPEAKERS, ETC.	26	4.81	26	3.89	31	4.52	4.16
K5 CAREER CLUBS	1	0.19	1	0.15	2	0.29	0.20
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	0	0.0	1	0.15	0.04
K7 JOB SITE TOURS	11	2.04	16	2.40	10	1.46	2.07
K8 JOB SHADOWING	2	0.37	0	0.0	0	0.0	0.03
K9 CONFERENCES WITH COMMUNITY REPS	7	1.30	7	1.05	7	1.02	1.06
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	5	0.93	3	0.45	2	0.29	0.44
L1 SIMULATIONS	4	0.74	4	0.60	1	0.15	0.47

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13E RESOURCE USED TO ENABLE POOR READERS TO GET INFO ABOUT OCCUPATIONS							
M1 CONFERENCES WITH COUNSELORS	10	1.85	34	5.09	26	3.79	4.40
M2 ASSISTANCE FROM OTHER STAFF	4	0.74	2	0.30	2	0.29	0.34
A99 BOUND REFERENCES	1	0.19	0	0.0	0	0.0	0.02
B99 OCCUPATIONAL BRIEFS AND KITS	0	0.0	1	0.15	0	0.0	0.09
C99 PERIODICALS	1	0.19	0	0.0	0	0.0	0.02
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	2	0.37	1	0.15	1	0.15	0.17
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	1	0.19	0	0.0	2	0.29	0.11
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	29	5.37	41	6.14	32	4.66	5.61
DK DON'T KNOW	47	8.70	75	11.23	62	9.04	10.32
NO RESPONSE	61	11.30	93	13.92	66	9.62	12.36
13F RESOURCE USED TO HELP COLLEGE-BOUND STUDENTS SELECT SUITABLE PROGRAMS							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	13	2.41	26	3.89	12	1.75	3.10
A2 DICTIONARY OF OCCUP. TITLES	4	0.74	3	0.45	2	0.29	0.43
A3 GUIDE FOR OCCUP. EXPLORATION	1	0.19	1	0.15	0	0.0	0.11
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	10	1.85	5	0.75	2	0.29	0.70
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	2	0.37	1	0.15	1	0.15	0.17
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	1	0.15	0.04
A7 THE NATIONAL APPRENTICESHIP PROGRAM	0	0.0	0	0.0	0	0.0	0.0
A8 OCCUP. HANDBOOKS FOR THE MILITARY	0	0.0	0	0.0	0	0.0	0.0
A9 WORKER TRAIT GROUP GUIDE	0	0.0	0	0.0	0	0.0	0.0
A10 OTHER (BOUND REFERENCES)	5	0.93	10	1.50	11	1.60	1.48
B1 B'NAI B'RITH BRIEFS	0	0.0	1	0.15	0	0.0	0.09
B2 CAREERS, INC.	5	0.93	2	0.30	2	0.29	0.35
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	5	0.93	11	1.65	9	1.31	1.48
B5 SRA BRIEFS	1	0.19	1	0.15	1	0.15	0.15
B6 OCCUP. GUIDANCE BRIEFS	0	0.0	2	0.30	0	0.0	0.18
B7 GUIDANCE CENTRE MONOGRAPHS	1	0.19	0	0.0	0	0.0	0.02
B8 JOB FACT SHEETS	0	0.0	0	0.0	0	0.0	0.0
B9 VOCATIONAL BIOGRAPHIES	0	0.0	0	0.0	0	0.0	0.0

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13F RESOURCE USED TO HELP COLLEGE-BOUND STUDENTS SELECT SUITABLE PROGRAMS							
B10 OCCUP. BRIEFS PUBLISHED BY STATE	2	0.37	2	0.30	1	0.15	0.26
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	1	0.19	2	0.30	2	0.29	0.29
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	2	0.37	0	0.0	0	0.0	0.03
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	2	0.37	6	0.90	4	0.58	0.75
C1 CAREER WORLD	2	0.37	1	0.15	0	0.0	0.12
C2 OCCUP. IN DEMAND	1	0.19	0	0.0	0	0.0	0.02
C3 OCCUP. OUTLOOK QUARTERLY	0	0.0	1	0.15	0	0.0	0.09
C4 REAL WORLD	0	0.0	0	0.0	0	0.0	0.0
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	0	0.0	0	0.0	0.0
C6 OTHER (PERIODICALS)	1	0.19	1	0.15	0	0.0	0.11
D1 OPPURTUNITIES IN . . .	0	0.0	0	0.0	0	0.0	0.0
D2 YOUR CAREER IN . . .	0	0.0	0	0.0	0	0.0	0.0
D3 YOUR FUTURE IN . . .	0	0.0	0	0.0	0	0.0	0.0
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	0	0.0	2	0.30	1	0.15	0.23
E1 DIRECTORIES OF BUSINESSES	0	0.0	0	0.0	1	0.15	0.04
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	0	0.0	0	0.0	1	0.15	0.04
E3 OTHER (LIST OF EMPLOYERS)	1	0.19	0	0.0	0	0.0	0.02
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	217	40.19	264	39.52	300	43.73	40.83
F2 VOCATIONAL SCHOOL DIRECTORIES	27	5.00	26	3.89	29	4.23	4.09
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	1	0.19	0	0.0	0	0.0	0.02
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	12	2.22	24	3.59	19	2.77	3.22
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	8	1.48	6	0.90	4	0.58	0.85
G3 CVIS	6	1.11	3	0.45	3	0.44	0.50
G4 DISCOVER	4	0.74	1	0.15	2	0.29	0.25
G5 GIS	37	6.85	18	2.69	76	11.08	5.63
G6 YOUR STATE SYSTEM	12	2.22	18	2.69	34	4.96	3.34
G7 YOUR SCHOOL OR COUNTY SYSTEM	2	0.37	1	0.15	3	0.44	0.26
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	2	0.37	1	0.15	1	0.15	0.17
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	0	0.0	0	0.0	1	0.15	0.04
H2 EXTERNALLY PRODUCED A-V EQUIP.	2	0.37	0	0.0	0	0.0	0.03
H3 OTHER (AUDIO-VISUAL)	0	0.0	0	0.0	2	0.29	0.09
I1 STATE OR REGIONAL MICROFILM	10	1.85	14	2.10	13	1.90	2.01
I2 LOCAL MICROFILM	1	0.19	0	0.0	0	0.0	0.02
I3 OTHER (MICROFORMS)	3	0.56	0	0.0	4	0.58	0.23
J1 KEY OR NEEDLESORT	1	0.19	5	0.75	2	0.29	0.56
J2 SCORE INTERP GUIDES FOR INVENTORIES	2	0.37	0	0.0	1	0.15	0.08
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	2	0.37	4	0.60	3	0.44	0.53

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13F RESOURCE USED TO HELP COLLEGE-BOUND STUDENTS SELECT SUITABLE PROGRAMS							
K1 COURSES IN CAREER PLANNING	3	0.56	1	0.15	6	0.87	0.41
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	1	0.19	0	0.0	1	0.15	0.06
K3 EXPLORATORY WORK EXPERIENCE	0	0.0	1	0.15	0	0.0	0.09
K4 CAREER DAYS, SPEAKERS, ETC.	7	1.30	15	2.25	7	1.02	1.78
K5 CAREER CLUBS	0	0.0	0	0.0	0	0.0	0.0
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	2	0.37	0	0.0	0	0.0	0.03
K7 JOB SITE TOURS	0	0.0	0	0.0	0	0.0	0.0
K8 JOB SHADOWING	0	0.0	0	0.0	0	0.0	0.0
K9 CONFERENCES WITH COMMUNITY REPS	4	0.74	2	0.30	4	0.58	0.43
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	3	0.56	3	0.45	0	0.0	0.32
L1 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M1 CONFERENCES WITH COUNSELORS	23	4.26	46	6.89	36	5.25	6.15
M2 ASSISTANCE FROM OTHER STAFF	3	0.56	4	0.60	2	0.29	0.50
A99 BOUND REFERENCES	0	0.0	0	0.0	1	0.15	0.04
B99 OCCUPATIONAL BRIEFS AND KITS	0	0.0	0	0.0	0	0.0	0.0
C99 PERIODICALS	0	0.0	0	0.0	0	0.0	0.0
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	3	0.56	2	0.30	1	0.15	0.27
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	1	0.19	0	0.0	0	0.0	0.02
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	0	0.0	0	0.0	0	0.0	0.0
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	17	3.15	17	2.54	16	2.33	2.53
DK DON'T KNOW	12	2.22	32	4.79	12	1.75	3.63
NO RESPONSE	53	9.81	82	12.28	52	7.58	10.61
13G RESOURCE USED TO HELP NON-COLLEGE BOUND STUDENTS SELECT PROGRAMS							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	27	5.00	23	3.44	24	3.50	3.59
A2 DICTIONARY OF OCCUP. TITLES	6	1.11	4	0.60	4	0.58	0.64
A3 GUIDE FOR OCCUP. EXPLORATION	3	0.56	1	0.15	1	0.15	0.18
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	7	1.30	12	1.80	6	0.87	1.47
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	0	0.0	0	0.0	0	0.0	0.0
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
A7 THE NATIONAL APPRENTICESHIP PROGRAM	9	1.67	3	0.45	2	0.29	0.51
A8 OCCUP. HANDBOOKS FOR THE MILITARY	2	0.37	4	0.60	0	0.0	0.39

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13G RESOURCE USED TO HELP NON-COLLEGE BOUND STUDENTS SELECT PROGRAMS							
A9 WORKER TRAIT GROUP GUIDE	1	0.19	0	0.0	0	0.0	0.02
A10 OTHER (BOUND REFERENCES)	3	0.56	4	0.60	9	1.31	0.81
B1 B'NAI B'RITH BRIEFS	0	0.0	0	0.0	0	0.0	0.0
B2 CAREERS, INC.	4	0.74	7	1.05	1	0.15	0.74
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	2	0.37	11	1.65	4	0.58	1.21
B5 SRA BRIEFS	5	0.93	4	0.60	2	0.29	0.53
B6 OCCUP. GUIDANCE BRIEFS	0	0.0	2	0.30	0	0.0	0.18
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	0	0.0	0	0.0	0.0
B8 JOB FACT SHEETS	0	0.0	1	0.15	0	0.0	0.09
B9 VOCATIONAL BIOGRAPHIES	2	0.37	2	0.30	0	0.0	0.21
B10 OCCUP. BRIEFS PUBLISHED BY STATE	2	0.37	7	1.05	3	0.44	0.80
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	0	0.0	2	0.30	1	0.15	0.23
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	3	0.56	2	0.30	1	0.15	0.27
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	3	0.56	6	0.90	3	0.44	0.73
C1 CAREER WORLD	3	0.56	1	0.15	1	0.15	0.18
C2 OCCUP. IN DEMAND	0	0.0	0	0.0	0	0.0	0.0
C3 OCCUP. OUTLOOK QUARTERLY	2	0.37	1	0.15	0	0.0	0.12
C4 REAL WORLD	0	0.0	1	0.15	0	0.0	0.09
C5 CIVIL SERVICE EXAM BULLETINS	1	0.19	0	0.0	0	0.0	0.02
C6 OTHER (PERIODICALS)	1	0.19	1	0.15	0	0.0	0.11
D1 OPPURTUNITIES IN . . .	1	0.19	0	0.0	1	0.15	0.06
D2 YOUR CAREER IN . . .	0	0.0	0	0.0	0	0.0	0.0
D3 YOUR FUTURE IN . . .	2	0.37	1	0.15	1	0.15	0.17
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	0	0.0	2	0.30	0	0.0	0.18
E1 DIRECTORIES OF BUSINESSES	4	0.74	1	0.15	2	0.29	0.25
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	1	0.19	0	0.0	0	0.0	0.02
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	0	0.0	1	0.15	0.04
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	6	1.11	7	1.05	6	0.87	1.00
F2 VOCATIONAL SCHOOL DIRECTORIES	187	34.63	232	34.73	299	43.59	37.41
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	1	0.19	1	0.15	3	0.44	0.24
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	12	2.22	22	3.29	17	2.48	2.95
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	9	1.67	4	0.60	5	0.73	0.73
G3 CVIS	6	1.11	1	0.15	5	0.73	0.41
G4 DISCOVER	2	0.37	1	0.15	0	0.0	0.12
G5 GIS	24	4.44	8	1.20	48	7.00	3.26
G6 YOUR STATE SYSTEM	12	2.22	21	3.14	34	4.96	3.62

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
13G RESOURCE USED TO HELP NON-COLLEGE BOUND STUDENTS SELECT PROGRAMS							
G7 YOUR SCHOOL OR COUNTY SYSTEM	3	0.56	1	0.15	4	0.58	0.32
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	1	0.19	3	0.45	1	0.15	0.33
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	1	0.19	0	0.0	0	0.0	0.02
H2 EXTERNALLY PRODUCED A-V EQUIP.	1	0.19	3	0.45	1	0.15	0.33
H3 OTHER (AUDIO-VISUAL)	0	0.0	2	0.30	0	0.0	0.18
I1 STATE OR REGIONAL MICROFILM	13	2.41	18	2.69	17	2.48	2.60
I2 LOCAL MICROFILM	2	0.37	1	0.15	1	0.15	0.17
I3 OTHER (MICROFORMS)	2	0.37	0	0.0	2	0.29	0.12
J1 KEY OR NEEDLESORT	0	0.0	10	1.50	3	0.44	1.04
J2 SCORE INTERP GUIDES FOR INVENTORIES	3	0.56	0	0.0	0	0.0	0.05
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	0	0.0	1	0.15	2	0.29	0.18
K1 COURSES IN CAREER PLANNING	3	0.56	4	0.60	10	1.46	0.86
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	1	0.19	4	0.60	5	0.73	0.60
K3 EXPLORATORY WORK EXPERIENCE	12	2.22	4	0.60	4	0.58	0.74
K4 CAREER DAYS, SPEAKERS, ETC.	12	2.22	10	1.50	9	1.31	1.50
K5 CAREER CLUBS	0	0.0	0	0.0	1	0.15	0.04
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	1	0.19	0	0.0	0	0.0	0.02
K7 JOB SITE TOURS	2	0.37	6	0.90	1	0.15	0.62
K8 JOB SHADOWING	0	0.0	0	0.0	0	0.0	0.0
K9 CONFERENCES WITH COMMUNITY REPS	4	0.74	2	0.30	4	0.58	0.43
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	2	0.37	5	0.75	5	0.73	0.71
L1 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M1 CONFERENCES WITH COUNSELORS	23	4.26	51	7.63	41	5.98	6.82
M2 ASSISTANCE FROM OTHER STAFF	4	0.74	4	0.60	2	0.29	0.52
A99 BOUND REFERENCES	0	0.0	1	0.15	0	0.0	0.09
B99 OCCUPATIONAL BRIEFS AND KITS	0	0.0	1	0.15	0	0.0	0.09
C99 PERIODICALS	1	0.19	0	0.0	0	0.0	0.02
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	1	0.19	1	0.15	1	0.15	0.15
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	1	0.19	0	0.0	0	0.0	0.02
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	1	0.19	0	0.0	2	0.29	0.11
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	15	2.78	14	2.10	13	1.90	2.09
DK DON'T KNOW	17	3.15	32	4.79	11	1.60	3.66
NO RESPONSE	61	11.30	90	13.47	62	9.04	11.91

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
14A RESOURCE AVAILABLE AT SCHOOL FIRST CHOICE FOR MOST VALUABLE OVERALL							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	191	35.37	224	33.53	222	32.36	33.30
A2 DICTIONARY OF OCCUP. TITLES	19	3.52	27	4.04	19	2.77	3.60
A3 GUIDE FOR OCCUP. EXPLORATION	0	0.0	3	0.45	0	0.0	0.27
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	16	2.96	17	2.54	16	2.33	2.51
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	0	0.0	0	0.0	0	0.0	0.0
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
A7 THE NATIONAL APPRENTICESHIP PROGRAM	0	0.0	0	0.0	0	0.0	0.0
A8 OCCUP. HANDBOOKS FOR THE MILITARY	0	0.0	0	0.0	0	0.0	0.0
A9 WORKER TRAIT GROUP GUIDE	1	0.19	2	0.30	3	0.44	0.33
A10 OTHER (BOUND REFERENCES)	2	0.37	6	0.90	4	0.58	0.75
B1 B'NAI B'RITH BRIEFS	0	0.0	0	0.0	0	0.0	0.0
B2 CAREERS, INC.	8	1.48	9	1.35	10	1.46	1.39
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	32	5.93	34	5.09	45	6.56	5.61
B5 SRA BRIEFS	4	0.74	19	2.84	12	1.75	2.32
B6 OCCUP. GUIDANCE BRIEFS	2	0.37	7	1.05	10	1.46	1.11
B7 GUIDANCE CENTRE MONOGRAPHS	0	0.0	2	0.30	0	0.0	0.18
B8 JOB FACT SHEETS	0	0.0	0	0.0	0	0.0	0.0
B9 VOCATIONAL BIOGRAPHIES	0	0.0	3	0.45	5	0.73	0.50
B10 OCCUP. BRIEFS PUBLISHED BY STATE	3	0.56	6	0.90	1	0.15	0.64
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	1	0.19	0	0.0	0	0.0	0.02
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	1	0.19	0	0.0	0	0.0	0.02
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	5	0.93	7	1.05	7	1.02	1.03
C1 CAREER WORLD	0	0.0	1	0.15	0	0.0	0.09
C2 OCCUP. IN DEMAND	3	0.56	1	0.15	0	0.0	0.14
C3 OCCUP. OUTLOOK QUARTERLY	1	0.19	2	0.30	1	0.15	0.24
C4 REAL WORLD	1	0.19	0	0.0	0	0.0	0.02
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	0	0.0	0	0.0	0.0
C6 OTHER (PERIODICALS)	2	0.37	1	0.15	1	0.15	0.17
D1 OPPURTUNITIES IN . . .	0	0.0	0	0.0	1	0.15	0.04
D2 YOUR CAREER IN . . .	0	0.0	1	0.15	0	0.0	0.09
D3 YOUR FUTURE IN . . .	0	0.0	0	0.0	0	0.0	0.0
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	0	0.0	0	0.0	0	0.0	0.0
E1 DIRECTORIES OF BUSINESSES	0	0.0	1	0.15	0	0.0	0.09
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	0	0.0	2	0.30	1	0.15	0.23
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	1	0.15	1	0.15	0.14
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	12	2.22	13	1.95	24	3.50	2.45
F2 VOCATIONAL SCHOOL DIRECTORIES	3	0.56	6	0.90	2	0.29	0.68
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	1	0.19	3	0.45	4	0.58	0.47

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
14A RESOURCE AVAILABLE AT SCHOOL FIRST CHOICE FOR MOST VALUABLE OVERALL							
G1 CHOICES	0	0.0	0	0.0	0	0.0	0.0
G2 COIN	9	1.67	8	1.20	7	1.02	1.18
G3 CVIS	4	0.74	0	0.0	7	1.02	0.38
G4 DISCOVER	3	0.56	1	0.15	0	0.0	0.14
G5 GIS	40	7.41	19	2.84	64	9.33	5.23
G6 YOUR STATE SYSTEM	15	2.78	35	5.24	56	8.16	5.92
G7 YOUR SCHOOL OR COUNTY SYSTEM	5	0.93	1	0.15	4	0.58	0.35
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	4	0.74	1	0.15	4	0.58	0.33
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	2	0.37	0	0.0	0	0.0	0.03
H2 EXTERNALLY PRODUCED A-V EQUIP.	11	2.04	5	0.75	6	0.87	0.90
H3 OTHER (AUDIO-VISUAL)	0	0.0	1	0.15	0	0.0	0.09
I1 STATE OR REGIONAL MICROFILM	24	4.44	52	7.78	38	5.54	6.79
I2 LOCAL MICROFILM	3	0.56	0	0.0	2	0.29	0.14
I3 OTHER (MICROFORMS)	1	0.19	1	0.15	0	0.0	0.11
J1 KEY OR NEEDLESORT	2	0.37	18	2.69	3	0.44	1.79
J2 SCORE INTERP GUIDES FOR INVENTORIES	0	0.0	1	0.15	4	0.58	0.27
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	1	0.19	3	0.45	2	0.29	0.38
K1 COURSES IN CAREER PLANNING	6	1.11	8	1.20	11	1.60	1.31
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	6	1.11	5	0.75	5	0.73	0.77
K3 EXPLORATORY WORK EXPERIENCE	8	1.48	4	0.60	7	1.02	0.81
K4 CAREER DAYS, SPEAKERS, ETC.	5	0.93	4	0.60	10	1.46	0.89
K5 CAREER CLUBS	1	0.19	0	0.0	0	0.0	0.02
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	1	0.19	1	0.15	0	0.0	0.11
K7 JOB SITE TOURS	4	0.74	1	0.15	3	0.44	0.29
K8 JOB SHADOWING	1	0.19	0	0.0	2	0.29	0.11
K9 CONFERENCES WITH COMMUNITY REPS	2	0.37	3	0.45	0	0.0	0.30
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	4	0.74	3	0.45	5	0.73	0.56
L1 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M1 CONFERENCES WITH COUNSELORS	22	4.07	38	5.69	26	3.79	4.96
M2 ASSISTANCE FROM OTHER STAFF	2	0.37	1	0.15	1	0.15	0.17
A99 BOUND REFERENCES	5	0.93	0	0.0	5	0.73	0.31
B99 OCCUPATIONAL BRIEFS AND KITS	1	0.19	2	0.30	1	0.15	0.24
C99 PERIODICALS	0	0.0	0	0.0	0	0.0	0.0
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	0	0.0	0.0
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	0	0.0	0	0.0	0	0.0	0.0
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
14A RESOURCE AVAILABLE AT SCHOOL FIRST CHOICE FOR MOST VALUABLE OVERALL							
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	2	0.37	0	0.0	0	0.0	0.03
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	2	0.37	0	0.0	3	0.44	0.17
DK DON'T KNOW	0	0.0	3	0.45	2	0.29	0.36
NO RESPONSE	36	6.67	51	7.63	19	2.77	6.05
14B RESOURCE AVAILABLE AT SCHOOL SECOND CHOICE FOR MOST VALUABLE OVERALL							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	84	15.56	105	15.72	126	18.37	16.50
A2 DICTIONARY OF OCCUP. TITLES	41	7.59	34	5.09	37	5.39	5.40
A3 GUIDE FOR OCCUP. EXPLORATION	6	1.11	4	0.60	1	0.15	0.50
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	22	4.07	22	3.29	17	2.48	3.11
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	1	0.19	0	0.0	0	0.0	0.02
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	0	0.0	0	0.0	0	0.0	0.0
A7 THE NATIONAL APPRENTICESHIP PROGRAM	0	0.0	0	0.0	1	0.15	0.04
A8 OCCUP. HANDBOOKS FOR THE MILITARY	5	0.93	3	0.45	4	0.58	0.53
A9 WORKER TRAIT GROUP GUIDE	3	0.56	3	0.45	4	0.58	0.50
A10 OTHER (BOUND REFERENCES)	6	1.11	5	0.75	10	1.46	1.00
B1 B'NAI B'RITH BRIEFS	0	0.0	1	0.15	1	0.15	0.14
B2 CAREERS, INC.	16	2.96	11	1.65	16	2.33	1.97
B3 CATALYST PAMPHLETS	0	0.0	0	0.0	0	0.0	0.0
B4 CHRONICLE GUIDANCE	37	6.85	51	7.63	57	8.31	7.77
B5 SRA BRIEFS	24	4.44	31	4.64	15	2.19	3.87
B6 OCCUP. GUIDANCE BRIEFS	4	0.74	6	0.90	6	0.87	0.83
B7 GUIDANCE CENTRE MONOGRAPHS	1	0.19	1	0.15	0	0.0	0.11
B8 JOB FACT SHEETS	0	0.0	1	0.15	0	0.0	0.09
B9 VOCATIONAL BIOGRAPHIES	3	0.56	3	0.45	7	1.02	0.63
B10 OCCUP. BRIEFS PUBLISHED BY STATE	9	1.67	9	1.35	5	0.73	1.18
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	3	0.56	7	1.05	9	1.31	1.08
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	0	0.0	1	0.15	0	0.0	0.09
B13 WRITE-UPS BY FORMER STUDENTS	0	0.0	0	0.0	0	0.0	0.0
B14 OTHER (OCCUP. BRIEFS AND KITS)	4	0.74	8	1.20	5	0.73	1.01
C1 CAREER WORLD	4	0.74	9	1.35	8	1.17	1.24
C2 OCCUP. IN DEMAND	0	0.0	1	0.15	0	0.0	0.09
C3 OCCUP. OUTLOOK QUARTERLY	4	0.74	3	0.45	5	0.73	0.56
C4 REAL WORLD	0	0.0	2	0.30	0	0.0	0.18
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	0	0.0	0	0.0	0.0
C6 OTHER (PERIODICALS)	0	0.0	1	0.15	1	0.15	0.14

(CONTINUED)

ALL SCHOOLS

ITEMS AND ALTERNATIVES	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
14B RESOURCE AVAILABLE AT SCHOOL SECOND CHOICE FOR MOST VALUABLE OVERALL							
D1 OPPURTUNITIES IN . . .	0	0.0	0	0.0	2	0.29	0.09
D2 YOUR CAREER IN . . .	2	0.37	2	0.30	1	0.15	0.26
D3 YOUR FUTURE IN . . .	3	0.56	2	0.30	3	0.44	0.36
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	0	0.0	1	0.15	1	0.15	0.14
E1 DIRECTORIES OF BUSINESSES	0	0.0	2	0.30	2	0.29	0.27
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	0	0.0	2	0.30	0	0.0	0.18
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	0	0.0	0	0.0	0.0
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	34	6.30	47	7.04	40	5.83	6.59
F2 VOCATIONAL SCHOOL DIRECTORIES	12	2.22	18	2.69	25	3.64	2.94
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	0	0.0	0	0.0	0	0.0	0.0
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	4	0.74	13	1.95	6	0.87	1.51
G1 CHOICES	0	0.0	1	0.15	0	0.0	0.09
G2 COIN	4	0.74	1	0.15	5	0.73	0.38
G3 CVIS	4	0.74	3	0.45	2	0.29	0.43
G4 DISCOVER	2	0.37	0	0.0	0	0.0	0.03
G5 GIS	14	2.59	10	1.50	23	3.35	2.16
G6 YOUR STATE SYSTEM	4	0.74	10	1.50	17	2.48	1.73
G7 YOUR SCHOOL OR COUNTY SYSTEM	2	0.37	0	0.0	2	0.29	0.12
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	2	0.37	0	0.0	1	0.15	0.08
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	3	0.56	2	0.30	3	0.44	0.36
H2 EXTERNALLY PRODUCED A-V EQUIP.	10	1.85	18	2.69	34	4.96	3.31
H3 OTHER (AUDIO-VISUAL)	1	0.19	0	0.0	1	0.15	0.06
I1 STATE OR REGIONAL MICROFILM	19	3.52	30	4.49	28	4.08	4.28
I2 LOCAL MICROFILM	2	0.37	1	0.15	0	0.0	0.12
I3 OTHER (MICROFORMS)	0	0.0	1	0.15	3	0.44	0.22
J1 KEY OR NEEDLESORT	2	0.37	10	1.50	8	1.17	1.29
J2 SCORE INTERP GUIDES FOR INVENTORIES	2	0.37	7	1.05	3	0.44	0.80
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	1	0.19	3	0.45	1	0.15	0.33
K1 COURSES IN CAREER PLANNING	8	1.48	11	1.65	6	0.87	1.39
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	7	1.30	12	1.80	17	2.48	1.96
K3 EXPLORATORY WORK EXPERIENCE	10	1.85	5	0.75	13	1.90	1.20
K4 CAREER DAYS, SPEAKERS, ETC.	24	4.44	29	4.34	16	2.33	3.73
K5 CAREER CLUBS	1	0.19	0	0.0	1	0.15	0.06
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	0	0.0	0	0.0	0.0
K7 JOB SITE TOURS	6	1.11	5	0.75	4	0.58	0.73
K8 JOB SHADOWING	3	0.56	2	0.30	6	0.87	0.50
K9 CONFERENCES WITH COMMUNITY REPS	3	0.56	4	0.60	5	0.73	0.63
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	0	0.0	1	0.15	8	1.17	0.45
L1 SIMULATIONS	2	0.37	1	0.15	0	0.0	0.12

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
14B RESOURCE AVAILABLE AT SCHOOL SECOND CHOICE FOR MOST VALUABLE OVERALL							
M1 CONFERENCES WITH COUNSELORS	6	1.11	7	1.05	10	1.46	1.18
M2 ASSISTANCE FROM OTHER STAFF	3	0.56	1	0.15	1	0.15	0.18
A99 BOUND REFERENCES	2	0.37	2	0.30	0	0.0	0.21
B99 OCCUPATIONAL BRIEFS AND KITS	2	0.37	1	0.15	0	0.0	0.12
C99 PERIODICALS	0	0.0	1	0.15	0	0.0	0.09
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	0	0.0	1	0.15	0.04
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	1	0.19	0	0.0	3	0.44	0.15
G99 COMPUTERIZED INFO. SYSTEMS	0	0.0	0	0.0	0	0.0	0.0
H99 AUDIO-VISUAL MATERIALS	2	0.37	1	0.15	0	0.0	0.12
I99 MICROFORMS	0	0.0	0	0.0	0	0.0	0.0
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	2	0.37	0	0.0	0	0.0	0.03
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	1	0.19	1	0.15	4	0.58	0.29
DK DON'T KNOW	1	0.19	3	0.45	6	0.87	0.56
NO RESPONSE	52	9.63	75	11.23	39	5.69	9.37
15A RESOURCE NOT AVAILABLE AT SCHOOL FIRST CHOICE TO ADD IF BUDGET ALLOWED							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	2	0.37	9	1.35	1	0.15	0.89
A2 DICTIONARY OF OCCUP. TITLES	7	1.30	16	2.40	5	0.73	1.78
A3 GUIDE FOR OCCUP. EXPLORATION	13	2.41	16	2.40	9	1.31	2.06
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	13	2.41	28	4.19	13	1.90	3.33
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	6	1.11	7	1.05	4	0.58	0.91
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	19	3.52	15	2.25	24	3.50	2.74
A7 THE NATIONAL APPRENTICESHIP PROGRAM	8	1.48	10	1.50	4	0.58	1.21
A8 OCCUP. HANDBOOKS FOR THE MILITARY	0	0.0	0	0.0	0	0.0	0.0
A9 WORKER TRAIT GROUP GUIDE	5	0.93	5	0.75	7	1.02	0.85
A10 OTHER (BOUND REFERENCES)	0	0.0	0	0.0	0	0.0	0.0
B1 B'NAI B'RITH BRIEFS	3	0.56	5	0.75	1	0.15	0.55
B2 CAREERS, INC.	13	2.41	12	1.80	5	0.73	1.52
B3 CATALYST PAMPHLETS	1	0.19	1	0.15	1	0.15	0.15
B4 CHRONICLE GUIDANCE	9	1.67	14	2.10	10	1.46	1.86
B5 SRA BRIEFS	19	3.52	12	1.80	16	2.33	2.11
B6 OCCUP. GUIDANCE BRIEFS	6	1.11	11	1.65	2	0.29	1.18
B7 GUIDANCE CENTRE MONOGRAPHS	2	0.37	2	0.30	3	0.44	0.35
B8 JOB FACT SHEETS	9	1.67	3	0.45	3	0.44	0.55
B9 VOCATIONAL BIOGRAPHIES	9	1.67	7	1.05	13	1.90	1.36

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
15A RESOURCE NOT AVAILABLE AT SCHOOL FIRST CHOICE TO ADD IF BUDGET ALLOWED							
B10 OCCUP. BRIEFS PUBLISHED BY STATE	3	0.56	2	0.30	1	0.15	0.27
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	0	0.0	1	0.15	0	0.0	0.09
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	1	0.19	0	0.0	0	0.0	0.02
B13 WRITE-UPS BY FORMER STUDENTS	3	0.56	2	0.30	3	0.44	0.36
B14 OTHER (OCCUP. BRIEFS AND KITS)	1	0.19	1	0.15	1	0.15	0.15
C1 CAREER WORLD	3	0.56	21	3.14	10	1.46	2.40
C2 OCCUP. IN DEMAND	20	3.70	6	0.90	7	1.02	1.18
C3 OCCUP. OUTLOOK QUARTERLY	10	1.85	8	1.20	4	0.58	1.07
C4 REAL WORLD	5	0.93	4	0.60	5	0.73	0.67
C5 CIVIL SERVICE EXAM BULLETINS	0	0.0	1	0.15	0	0.0	0.09
C6 OTHER (PERIODICALS)	0	0.0	0	0.0	0	0.0	0.0
D1 OPPURTUNITIES IN . . .	3	0.56	4	0.60	2	0.29	0.50
D2 YOUR CAREER IN . . .	2	0.37	6	0.90	2	0.29	0.66
D3 YOUR FUTURE IN . . .	1	0.19	1	0.15	5	0.73	0.33
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	0	0.0	0	0.0	0	0.0	0.0
E1 DIRECTORIES OF BUSINESSES	9	1.67	4	0.60	7	1.02	0.82
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	3	0.56	4	0.60	6	0.87	0.68
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	0	0.0	0	0.0	0.0
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	9	1.67	7	1.05	6	0.87	1.05
F2 VOCATIONAL SCHOOL DIRECTORIES	3	0.56	7	1.05	4	0.58	0.86
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	1	0.19	3	0.45	3	0.44	0.42
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	0	0.0	1	0.15	0	0.0	0.09
G1 CHOICES	4	0.74	5	0.75	1	0.15	0.56
G2 COIN	25	4.63	40	5.99	34	4.96	5.55
G3 CVIS	53	9.81	42	6.29	51	7.43	6.94
G4 DISCOVER	8	1.48	9	1.35	9	1.31	1.35
G5 GIS	26	4.81	42	6.29	85	12.39	8.03
G6 YOUR STATE SYSTEM	9	1.67	37	5.54	29	4.23	4.79
G7 YOUR SCHOOL OR COUNTY SYSTEM	1	0.19	3	0.45	6	0.87	0.56
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	2	0.37	1	0.15	9	1.31	0.53
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	10	1.85	14	2.10	14	2.04	2.06
H2 EXTERNALLY PRODUCED A-V EQUIP.	11	2.04	13	1.95	15	2.19	2.03
H3 OTHER (AUDIO-VISUAL)	0	0.0	1	0.15	0	0.0	0.09
I1 STATE OR REGIONAL MICROFILM	19	3.52	20	2.99	32	4.66	3.55
I2 LOCAL MICROFILM	7	1.30	2	0.30	4	0.58	0.47
I3 OTHER (MICROFORMS)	1	0.19	0	0.0	1	0.15	0.06
J1 KEY OR NEEDLESORT	2	0.37	3	0.45	5	0.73	0.53
J2 SCORE INTERP GUIDES FOR INVENTORIES	1	0.19	0	0.0	1	0.15	0.06
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	1	0.19	0	0.0	1	0.15	0.06

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
15A RESOURCE NOT AVAILABLE AT SCHOOL FIRST CHOICE TO ADD IF BUDGET ALLOWED							
K1 COURSES IN CAREER PLANNING	25	4.63	19	2.84	28	4.08	3.38
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	1	0.19	3	0.45	6	0.87	0.56
K3 EXPLORATORY WORK EXPERIENCE	1	0.19	6	0.90	6	0.87	0.83
K4 CAREER DAYS, SPEAKERS, ETC.	0	0.0	0	0.0	3	0.44	0.13
K5 CAREER CLUBS	0	0.0	1	0.15	1	0.15	0.14
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	2	0.37	0	0.0	0	0.0	0.03
K7 JOB SITE TOURS	7	1.30	9	1.35	11	1.60	1.42
K8 JOB SHADOWING	6	1.11	11	1.65	14	2.04	1.72
K9 CONFERENCES WITH COMMUNITY REPS	1	0.19	2	0.30	2	0.29	0.29
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	1	0.19	0	0.0	2	0.29	0.11
L1 SIMULATIONS	5	0.93	13	1.95	17	2.48	2.02
M1 CONFERENCES WITH COUNSELORS	1	0.19	2	0.30	1	0.15	0.24
M2 ASSISTANCE FROM OTHER STAFF	1	0.19	2	0.30	2	0.29	0.29
A99 BOUND REFERENCES	1	0.19	0	0.0	0	0.0	0.02
B99 OCCUPATIONAL BRIEFS AND KITS	1	0.19	0	0.0	0	0.0	0.02
C99 PERIODICALS	0	0.0	0	0.0	0	0.0	0.0
D99 SERIES OF BOOKS ON INDIV. OCC.	0	0.0	1	0.15	1	0.15	0.14
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	4	0.74	1	0.15	2	0.29	0.25
H99 AUDIO-VISUAL MATERIALS	2	0.37	1	0.15	0	0.0	0.12
I99 MICROFORMS	0	0.0	0	0.0	1	0.15	0.04
J99 NON-COMPUTERIZED SORTING MATERIALS	0	0.0	0	0.0	0	0.0	0.0
K99 SCHOOL ARRANGED EXPERIENCES	0	0.0	1	0.15	1	0.15	0.14
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	0	0.0	1	0.15	9	1.31	0.49
DK DON'T KNOW	10	1.85	21	3.14	18	2.62	2.87
NO RESPONSE	70	12.96	86	12.87	77	11.22	12.36
15B RESOURCE NOT AVAILABLE AT SCHOOL SECOND CHOICE TO ADD IF BUDGET ALLOWED							
A1 OCCUPATIONAL OUTLOOK HANDBOOK	2	0.37	3	0.45	2	0.29	0.39
A2 DICTIONARY OF OCCUP. TITLES	1	0.19	11	1.65	1	0.15	1.06
A3 GUIDE FOR OCCUP. EXPLORATION	12	2.22	17	2.54	10	1.46	2.18
A4 ENCYCL. OF CAREERS AND VOC. GUIDANCE	12	2.22	14	2.10	7	1.02	1.77
A5 I CAN BE ANYTHING: CAREERS AND COLLEGES FOR YOUNG W	5	0.93	3	0.45	4	0.58	0.53
A6 EMPLOYMENT OPPORTUNITIES FOR THE HANDICAPPED	14	2.59	24	3.59	18	2.62	3.20
A7 THE NATIONAL APPRENTICESHIP PROGRAM	7	1.30	3	0.45	13	1.90	0.97
A8 OCCUP. HANDBOOKS FOR THE MILITARY	0	0.0	0	0.0	0	0.0	0.0

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
15B RESOURCE NOT AVAILABLE AT SCHOOL SECOND CHOICE TO ADD IF BUDGET ALLOWED							
A9 WORKER TRAIT GROUP GUIDE	8	1.48	6	0.90	6	0.87	0.94
A10 OTHER (BOUND REFERENCES)	0	0.0	1	0.15	0	0.0	0.09
B1 B'NAI B'RITH BRIEFS	6	1.11	3	0.45	6	0.87	0.64
B2 CAREERS, INC.	8	1.48	7	1.05	7	1.02	1.08
B3 CATALYST PAMPHLETS	2	0.37	0	0.0	0	0.0	0.03
B4 CHRONICLE GUIDANCE	12	2.22	11	1.65	4	0.58	1.37
B5 SRA BRIEFS	10	1.85	16	2.40	12	1.75	2.15
B6 OCCUP. GUIDANCE BRIEFS	9	1.67	8	1.20	5	0.73	1.09
B7 GUIDANCE CENTRE MONOGRAPHS	5	0.93	3	0.45	3	0.44	0.49
B8 JOB FACT SHEETS	5	0.93	9	1.35	9	1.31	1.30
B9 VOCATIONAL BIOGRAPHIES	12	2.22	9	1.35	14	2.04	1.64
B10 OCCUP. BRIEFS PUBLISHED BY STATE	3	0.56	1	0.15	0	0.0	0.14
B11 PAMPHLETS PREPARED BY PROFESSIONAL ASSOC.	2	0.37	0	0.0	1	0.15	0.08
B12 PAMPHLETS PREPARED BY PRIVATE BUSINESS	2	0.37	2	0.30	1	0.15	0.26
B13 WRITE-UPS BY FORMER STUDENTS	2	0.37	1	0.15	4	0.58	0.30
B14 OTHER (OCCUP. BRIEFS AND KITS)	1	0.19	2	0.30	1	0.15	0.24
C1 CAREER WORLD	7	1.30	16	2.40	16	2.33	2.28
C2 OCCUP. IN DEMAND	15	2.78	24	3.59	18	2.62	3.22
C3 OCCUP. OUTLOOK QUARTERLY	11	2.04	10	1.50	11	1.60	1.58
C4 REAL WORLD	5	0.93	17	2.54	9	1.31	2.02
C5 CIVIL SERVICE EXAM BULLETINS	5	0.93	3	0.45	3	0.44	0.49
C6 OTHER (PERIODICALS)	1	0.19	0	0.0	0	0.0	0.02
D1 OPPURTUNITIES IN . . .	6	1.11	2	0.30	4	0.58	0.46
D2 YOUR CAREER IN . . .	5	0.93	5	0.75	9	1.31	0.94
D3 YOUR FUTURE IN . . .	6	1.11	2	0.30	5	0.73	0.50
D4 OTHER (SERIES OF BOOKS ON INDIVIDUAL OCCUP.)	0	0.0	0	0.0	0	0.0	0.0
E1 DIRECTORIES OF BUSINESSES	9	1.67	12	1.80	8	1.17	1.59
E2 SCHOOL PREPARED LISTS OF EMPLOYERS, ETC.	5	0.93	6	0.90	6	0.87	0.89
E3 OTHER (LIST OF EMPLOYERS)	0	0.0	0	0.0	0	0.0	0.0
F1 COLLEGE DIRECTORIES ARRANGED BY OCCUP.	2	0.37	6	0.90	5	0.73	0.80
F2 VOCATIONAL SCHOOL DIRECTORIES	11	2.04	9	1.35	10	1.46	1.44
F3 A JOB TRAINIG DIRECT. FOR YOUR STAFF	6	1.11	5	0.75	6	0.87	0.82
F4 OTHER (EDUCATIONAL DIRECTORIES FOR OCCUPATIONS)	0	0.0	0	0.0	0	0.0	0.0
G1 CHOICES	5	0.93	4	0.60	2	0.29	0.53
G2 COIN	20	3.70	17	2.54	23	3.35	2.89
G3 CVIS	17	3.15	32	4.79	35	5.10	4.74
G4 DISCOVER	5	0.93	5	0.75	6	0.87	0.80
G5 GIS	16	2.96	15	2.25	26	3.79	2.78
G6 YOUR STATE SYSTEM	6	1.11	13	1.95	11	1.60	1.77

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
(ITEM CONTINUED)							
15B RESOURCE NOT AVAILABLE AT SCHOOL SECOND CHOICE TO ADD IF BUDGET ALLOWED							
G7 YOUR SCHOOL OR COUNTY SYSTEM	1	0.19	1	0.15	3	0.44	0.24
G8 OTHER (COMPUTERIZED INFO. SYSTEMS)	0	0.0	3	0.45	1	0.15	0.32
H1 YOUR OWN SCHOOL MADE A-V EQUIP.	8	1.48	16	2.40	22	3.21	2.56
H2 EXTERNALLY PRODUCED A-V EQUIP.	12	2.22	19	2.84	20	2.92	2.81
H3 OTHER (AUDIO-VISUAL)	0	0.0	0	0.0	1	0.15	0.04
I1 STATE OR REGIONAL MICROFILM	16	2.96	17	2.54	19	2.77	2.65
I2 LOCAL MICROFILM	12	2.22	5	0.75	8	1.17	1.01
I3 OTHER (MICROFORMS)	1	0.19	0	0.0	1	0.15	0.06
J1 KEY OR NEEDLESORT	7	1.30	6	0.90	9	1.31	1.06
J2 SCORE INTERP GUIDES FOR INVENTORIES	3	0.56	0	0.0	1	0.15	0.09
J3 OTHER (NON-COMPUTER SORTING MATERIALS)	0	0.0	0	0.0	0	0.0	0.0
K1 COURSES IN CAREER PLANNING	17	3.15	20	2.99	24	3.50	3.16
K2 OCCUP. INFO. UNITS IN SUBJECT MATTER CLASSES	9	1.67	5	0.75	6	0.87	0.87
K3 EXPLORATORY WORK EXPERIENCE	1	0.19	12	1.80	4	0.58	1.28
K4 CAREER DAYS, SPEAKERS, ETC.	2	0.37	0	0.0	4	0.58	0.21
K5 CAREER CLUBS	3	0.56	0	0.0	1	0.15	0.09
K6 VOLUNTEER SERVICE ARRANGED BY SCHOOL	0	0.0	2	0.30	2	0.29	0.27
K7 JOB SITE TOURS	5	0.93	13	1.95	15	2.19	1.93
K8 JOB SHADOWING	9	1.67	15	2.25	20	2.92	2.40
K9 CONFERENCES WITH COMMUNITY REPS	1	0.19	5	0.75	4	0.58	0.65
K10 OTHER (SCHOOL ARRANGED EXPERIENCES)	1	0.19	0	0.0	3	0.44	0.15
L1 SIMULATIONS	11	2.04	11	1.65	24	3.50	2.25
M1 CONFERENCES WITH COUNSELORS	0	0.0	1	0.15	1	0.15	0.14
M2 ASSISTANCE FROM OTHER STAFF	1	0.19	2	0.30	2	0.29	0.29
A99 BOUND REFERENCES	1	0.19	0	0.0	0	0.0	0.02
B99 OCCUPATIONAL BRIEFS AND KITS	0	0.0	0	0.0	0	0.0	0.0
C99 PERIODICALS	1	0.19	1	0.15	0	0.0	0.11
D99 SERIES OF BOOKS ON INDIV. OCC.	1	0.19	0	0.0	1	0.15	0.06
E99 LIST OF EMPLOYERS	0	0.0	0	0.0	0	0.0	0.0
F99 EDUCATIONAL DIR. FOR OCC.	0	0.0	0	0.0	0	0.0	0.0
G99 COMPUTERIZED INFO. SYSTEMS	2	0.37	1	0.15	3	0.44	0.26
H99 AUDIO-VISUAL MATERIALS	0	0.0	0	0.0	0	0.0	0.0
I99 MICROFORMS	0	0.0	1	0.15	0	0.0	0.09
J99 NON-COMPUTERIZED SORTING MATERIALS	1	0.19	0	0.0	1	0.15	0.06
K99 SCHOOL ARRANGED EXPERIENCES	0	0.0	0	0.0	0	0.0	0.0
L99 SIMULATIONS	0	0.0	0	0.0	0	0.0	0.0
M99 PERSONAL CONTACT WITH SCHOOL STAFF	0	0.0	0	0.0	0	0.0	0.0
NA NOT APPLICABLE	2	0.37	2	0.30	9	1.31	0.62
DK DON'T KNOW	11	2.04	19	2.84	16	2.33	2.61
NO RESPONSE	98	18.15	134	20.06	120	17.49	19.08

(CONTINUED)

ALL SCHOOLS

ITEMS AND ALTERNATIVES	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
16 DOES SCHOOL HAVE OCCUPATIONAL INFORMATION IN PUBLISHED FORM ?							
YES	455	84.26	552	82.63	601	87.61	84.22
NO	28	5.19	46	6.89	26	3.79	5.78
NOT APPLICABLE	1	0.19	0	0.0	0	0.0	0.02
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	56	10.37	70	10.48	59	8.60	9.88
17A HOW MANY COPIES OF 78-79 OCCUPATIONAL OUTLOOK HANDBOOK DO YOU HAVE?							
NONE	21	3.89	51	7.63	16	2.33	5.67
ONE	79	14.63	182	27.25	102	14.87	22.31
TWO	102	18.89	130	19.46	125	18.22	19.01
THREE	43	7.96	70	10.48	71	10.35	10.21
FOUR	36	6.67	31	4.64	64	9.33	6.25
FIVE OR MORE	156	28.89	68	10.18	222	32.36	18.63
NOT APPLICABLE	1	0.19	0	0.0	0	0.0	0.02
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	102	18.89	136	20.36	86	12.54	17.81
17B HOW MANY COPIES OF 76-77 OCCUPATIONAL OUTLOOK HANDBOOK DO YOU HAVE?							
NONE	28	5.19	59	8.83	29	4.23	7.09
ONE	85	15.74	180	26.95	99	14.43	22.09
TWO	67	12.41	67	10.03	86	12.54	11.00
THREE	33	6.11	34	5.09	40	5.83	5.40
FOUR	27	5.00	9	1.35	27	3.94	2.46
FIVE OR MORE	53	9.81	15	2.25	68	9.91	5.26
NOT APPLICABLE	1	0.19	0	0.0	0	0.0	0.02
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	246	45.56	304	45.51	337	49.13	46.58
17C HOW MANY COPIES OF 74-75 OCCUPATIONAL OUTLOOK HANDBOOK DO YOU HAVE?							
NONE	71	13.15	101	15.12	69	10.06	13.38
ONE	60	11.11	103	15.42	65	9.48	13.20
TWO	29	5.37	40	5.99	49	7.14	6.28
THREE	19	3.52	15	2.25	6	0.87	1.93
FOUR	13	2.41	3	0.45	9	1.31	0.89
FIVE OR MORE	19	3.52	7	1.05	20	2.92	1.84
NOT APPLICABLE	1	0.19	0	0.0	0	0.0	0.02
DON'T KNOW	1	0.19	0	0.0	0	0.0	0.02
NO RESPONSE	327	60.56	399	59.73	468	68.22	62.35

(CONTINUED)

ALL SCHOOLS

		STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS		540		668		686		
	ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
17D	HOW MANY COPIES OF 73/EARLIER OCCUPATIONAL OUTLOOK HANDBOOK DO YOU HAVE?							
	NONE	93	17.22	120	17.96	88	12.83	16.30
	ONE	36	6.67	68	10.18	37	5.39	8.39
	TWO	18	3.33	20	2.99	27	3.94	3.31
	THREE	9	1.67	6	0.90	4	0.58	0.87
	FOUR	10	1.85	2	0.30	4	0.58	0.52
	FIVE OR MORE	15	2.78	6	0.90	14	2.04	1.41
	NOT APPLICABLE	1	0.19	0	0.0	0	0.0	0.02
	DON'T KNOW	1	0.19	1	0.15	0	0.0	0.11
	NO RESPONSE	357	66.11	445	66.62	512	74.64	68.97
18	HOW OFTEN OCC INFO PUBLICATIONS REVIEWED TO REMOVE OBSOLETE MATERIAL?							
	NEVER	26	4.81	37	5.54	25	3.64	4.89
	LESS THAN ONCE A YEAR	132	24.44	177	26.50	152	22.16	24.96
	ONCE A YEAR	285	52.78	340	50.90	409	59.62	53.69
	MORE THAN ONCE A YEAR	56	10.37	54	8.08	69	10.06	8.88
	NOT APPLICABLE	1	0.19	0	0.0	0	0.0	0.02
	DON'T KNOW	0	0.0	1	0.15	0	0.0	0.09
	NO RESPONSE	40	7.41	59	8.83	31	4.52	7.37
19	DOES SCHOOL HAVE TERMINALS/PRINTERS TO GET OCC INFO FROM A COMPUTER?							
	YES	150	27.78	109	16.32	260	37.90	23.94
	NO	375	69.44	535	80.09	420	61.22	73.28
	NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	15	2.78	24	3.59	6	0.87	2.68
20	DID SCHOOL EVER HAVE COMPUTERIZED OCCUPATIONAL INFORMATION SYSTEM?							
	YES	26	4.81	26	3.89	36	5.25	4.39
	NO	325	60.19	478	71.56	361	52.62	64.67
	NOT SURE	7	1.30	7	1.05	6	0.87	1.02
	NOT APPLICABLE	0	0.0	1	0.15	0	0.0	0.09
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	182	33.70	156	23.35	283	41.25	29.74

(CONTINUED)

ALL SCHOOLS

ITEMS AND ALTERNATIVES	STRATUM1 FREQ	STRATUM1 PERCENT	STRATUM2 FREQ	STRATUM2 PERCENT	STRATUM3 FREQ	STRATUM3 PERCENT	NATL EST PERCENT
NUMBER OF OBSERVATIONS	540		668		686		
21A PERCENT OF SYSTEM USE BY STUDENTS UNASSISTED AT TERMINAL TO GET INFO							
81+ %	7	1.30	8	1.20	21	3.06	1.78
61 - 80 %	17	3.15	22	3.29	26	3.79	3.43
41 - 60 %	15	2.78	21	3.14	34	4.96	3.66
21 - 40 %	17	3.15	7	1.05	32	4.66	2.34
1 - 20 %	35	6.48	28	4.19	67	9.77	6.10
0 %	24	4.44	7	1.05	35	5.10	2.59
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
DON'T KNOW	1	0.19	0	0.0	2	0.29	0.11
NO RESPONSE	424	78.52	575	86.08	469	68.37	79.89
21B PERCENT OF SYSTEM USE BY STUDENTS ASSISTED AT TERMINAL TO GET INFO							
81+ %	17	3.15	14	2.10	37	5.39	3.20
61 - 80 %	20	3.70	4	0.60	26	3.79	1.85
41 - 60 %	24	4.44	12	1.80	42	6.12	3.36
21 - 40 %	21	3.89	25	3.74	43	6.27	4.53
1 - 20 %	31	5.74	40	5.99	69	10.06	7.21
0 %	12	2.22	4	0.60	11	1.60	1.05
NOT APPLICABLE	0	0.0	0	0.0	1	0.15	0.04
DON'T KNOW	1	0.19	0	0.0	2	0.29	0.11
NO RESPONSE	414	76.67	569	85.18	455	66.33	78.56
21C PERCENT OF SYSTEM USE BY STAFF TO GET INFO TO TRANSMIT TO STUDENTS							
81+ %	22	4.07	8	1.20	25	3.64	2.20
61 - 80 %	4	0.74	2	0.30	9	1.31	0.65
41 - 60 %	4	0.74	2	0.30	12	1.75	0.78
21 - 40 %	6	1.11	7	1.05	21	3.06	1.67
1 - 20 %	68	12.59	52	7.78	121	17.64	11.22
0 %	15	2.78	12	1.80	13	1.90	1.91
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
DON'T KNOW	1	0.19	0	0.0	3	0.44	0.15
NO RESPONSE	420	77.78	585	87.57	482	70.26	81.31
22 YEAR TO WHICH WAGE/SALARY INFO IN COMPUTERIZED OCC INFO SYSTEM APPLIES							
1978-79	114	21.11	77	11.53	201	29.30	17.82
1976-77	13	2.41	13	1.95	27	3.94	2.60
1974-75	2	0.37	1	0.15	0	0.0	0.12
1973- EARLIER	1	0.19	0	0.0	1	0.15	0.06
NOT APPLICABLE	1	0.19	0	0.0	0	0.0	0.02
DON'T KNOW	15	2.78	17	2.54	20	2.92	2.68
NO RESPONSE	394	72.96	560	83.83	437	63.70	76.61

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
23 ARE THERE ANY TERMINALS FOR THE COMPUTERIZED SYSTEM IN YOUR SCHOOL?							
YES	141	26.11	96	14.37	233	33.97	21.41
NO	8	1.48	11	1.65	23	3.35	2.15
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	391	72.41	561	83.98	430	62.68	76.34
24 NUMBER OF TERMINALS IN SCHOOL FOR STUDENT USE TO GET OCC INFO							
11+	0	0.0	0	0.0	2	0.29	0.09
9 - 10	0	0.0	0	0.0	0	0.0	0.0
7 - 8	2	0.37	0	0.0	3	0.44	0.17
5 - 6	3	0.56	0	0.0	5	0.73	0.27
3 - 4	9	1.67	5	0.75	18	2.62	1.40
1 - 2	120	22.22	90	13.47	200	29.15	19.04
0	5	0.93	0	0.0	1	0.15	0.13
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	401	74.26	573	85.78	457	66.62	78.80
25A AVERAGE HOURS/DAY TERMINAL AVAILABLE FOR STUDENT USE TO GET OCC INFO							
10.01+	3	0.56	5	0.75	8	1.17	0.86
8.01 - 10.00	1	0.19	5	0.75	9	1.31	0.87
6.01 - 8.00	55	10.19	42	6.29	107	15.60	9.48
4.01 - 6.00	49	9.07	13	1.95	55	8.02	4.44
2.01 - 4.00	10	1.85	17	2.54	27	3.94	2.91
.01 - 2.00	7	1.30	12	1.80	18	2.62	2.00
0.00	10	1.85	0	0.0	3	0.44	0.30
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
DON'T KNOW	1	0.19	1	0.15	2	0.29	0.20
NO RESPONSE	404	74.81	573	85.78	457	66.62	78.85
25B AVERAGE HOURS/DAY TERMINALS USED BY STUDENTS TO GET OCC INFO							
10.01+	0	0.0	0	0.0	0	0.0	0.0
8.01 - 10.00	0	0.0	1	0.15	0	0.0	0.09
6.01 - 8.00	13	2.41	5	0.75	26	3.79	1.83
4.01 - 6.00	21	3.89	12	1.80	52	7.58	3.75
2.01 - 4.00	32	5.93	21	3.14	48	7.00	4.57
.01 - 2.00	40	7.41	42	6.29	69	10.06	7.54
0.00	15	2.78	5	0.75	11	1.60	1.19
NOT APPLICABLE	0	0.0	0	0.0	1	0.15	0.04
DON'T KNOW	3	0.56	2	0.30	8	1.17	0.59
NO RESPONSE	416	77.04	580	86.83	471	68.66	80.30

(CONTINUED)

ALL SCHOOLS

	NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
	ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
26	HOW ARE STUDENTS SCHEDULED TO USE TERMINAL TO GET OCC INFO?							
	STUDENT INITIATED REQUEST	120	22.22	79	11.83	201	29.30	18.09
	ASSIGNED BY TEACHER	77	14.26	56	8.38	118	17.20	11.60
	ASSIGNED BY GUIDANCE COUNSELOR	105	19.44	61	9.13	168	24.49	14.75
	OTHER	31	5.74	17	2.54	45	6.56	4.06
	STUDENTS ARE NOT SCHEDULED	22	4.07	13	1.95	25	3.64	2.65
	DON'T KNOW	[illegible]	0.0	0	0.0	1	0.15	0.04
	NO RESPONSE	39[illegible]	73.89	571	85.48	454	66.18	78.45
27	WHO IS AVAILABLE TO ASSIST STUDENTS IN USING THE COMPUTER?							
	GUIDANCE COUNSELOR	112	20.74	76	11.38	181	26.38	16.80
	SECRETARY	35	6.48	30	4.49	77	11.22	6.73
	OTHER	80	14.81	54	8.08	150	21.87	12.90
	STUDENTS CAN USE IT WITHOUT HELP	26	4.81	33	4.94	48	7.00	5.56
	DON'T KNOW	0	0.0	0	0.0	1	0.15	0.04
	NO RESPONSE	400	74.07	572	85.63	455	66.33	78.60
28	DOES SCHOOL HAVE OCC INFO IN A-V,MICROFICHE,NON-COMP.SORTING MATERIAL?							
	YES	361	66.85	465	69.61	501	73.03	70.35
	NO	153	28.33	175	26.20	165	24.05	25.70
	NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	26	4.81	28	4.19	20	2.92	3.85
29A	HOW OFTEN A-V OCC INFO REVIEWED TO REMOVE OBSOLETE MATERIAL?							
	NEVER	24	4.44	23	3.44	27	3.94	3.68
	LESS THAN ONCE A YEAR	88	16.30	118	17.66	134	19.53	18.10
	ONCE A YEAR	187	34.63	236	35.33	256	37.32	35.84
	MORE THAN ONCE A YEAR	41	7.59	29	4.34	38	5.54	4.99
	MATERIAL NOT AVAILABLE	12	2.22	34	5.09	20	2.92	4.16
	DON'T KNOW	25	4.63	26	3.89	28	4.08	4.01
	NO RESFONSE	163	30.19	202	30.24	183	26.68	29.11
29B	HOW OFTEN MICRO-FICHE OCC INFO REVIEWED TO REMOVE OBSOLETE MATERIAL?							
	NEVER	17	3.15	20	2.99	20	2.92	2.98
	LESS THAN ONCE A YEAR	44	8.15	56	8.38	61	8.89	8.51
	ONCE A YEAR	111	20.56	176	26.35	203	29.59	26.81
	MORE THAN ONCE A YEAR	22	4.07	26	3.89	21	3.06	3.65
	MATERIAL NOT AVAILABLE	100	18.52	138	20.66	125	18.22	19.70
	DON'T KNOW	15	2.78	19	2.84	20	2.92	2.86
	NO RESPONSE	231	42.78	233	34.88	236	34.40	35.39

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
29C HOW OFTEN NON-COMP SORT.MATERIAL REVIEWED TO REMOVE OBSOLETE MATERIAL?							
NEVER	11	2.04	11	1.65	19	2.77	2.02
LESS THAN ONCE A YEAR	33	6.11	41	6.14	46	6.71	6.30
ONCE A YEAR	83	15.37	148	22.16	161	23.47	21.94
MORE THAN ONCE A YEAR	12	2.22	21	3.14	24	3.50	3.17
MATERIAL NOT AVIALABLE	131	24.26	165	24.70	161	23.47	24.26
DON'T KNOW	18	3.33	19	2.84	18	2.62	2.82
NO RESPONSE	252	46.67	263	39.37	257	37.46	39.39
30A HOW MANY OCCUPATIONS ARE COVERED BY A-V MATERIALS?							
20 OR FEWER	78	14.44	129	19.31	106	15.45	17.68
21 - 100	150	27.78	165	24.70	184	26.82	25.60
101 - 200	61	11.30	61	9.13	88	12.83	10.45
201+	66	12.22	62	9.28	95	13.85	10.93
MATERIAL NOT AVAILABLE	14	2.59	41	6.14	22	3.21	4.92
DON'T KNOW	1	0.19	2	0.30	1	0.15	0.24
NO RESPONSE	170	31.48	208	31.14	190	27.70	30.08
30B HOW MANY OCCUPATIONS ARE COVERED BY MICROFICHE MATERIALS?							
20 OR FEWER	22	4.07	29	4.34	24	3.50	4.05
21 - 100	47	8.70	43	6.44	52	7.58	6.98
101 - 200	29	5.37	59	8.83	63	9.18	8.63
201+	113	20.93	153	22.90	175	25.51	23.51
MATERIAL NOT AVAILABLE	105	19.44	149	22.31	137	19.97	21.31
DON'T KNOW	3	0.56	1	0.15	1	0.15	0.18
NO RESPONSE	221	40.93	234	35.03	234	34.11	35.23
30C HOW MANY OCCUPATIONS ARE COVERED BY NON-COMP SORTING MATERIALS?							
20 OR FEWER	12	2.22	28	4.19	16	2.33	3.44
21 - 100	26	4.81	33	4.94	30	4.37	4.75
101 - 200	37	6.85	45	6.74	54	7.87	7.09
201+	65	12.04	117	17.51	148	21.57	18.26
MATERIAL NOT AVAILABLE	130	24.07	178	26.65	175	25.51	26.04
DON'T KNOW	1	0.19	1	0.15	1	0.15	0.15
NO RESPONSE	269	49.81	266	39.82	262	38.19	40.16

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1		STRATUM2		STRATUM3		NATL EST
	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
31 HOW ARE STUDENTS SCHEDULED TO USE THE A-V,MICROFICHE,NON-COMPUTER RESOURCES							
STUDENT INITATED REQUEST	306	56.67	389	58.23	447	65.16	60.16
ASSIGNED BY TEACHER	257	47.59	305	45.66	358	52.19	47.79
ASSIGNED BY GUIDANCE COUNSELOR	243	45.00	316	47.31	358	52.19	48.55
OTHER	83	15.37	71	10.63	105	15.31	12.47
STUDENTS NOT SCHEDULED	48	8.89	57	8.53	50	7.29	8.17
DON'T KNOW	0	0.0	0	0.0	1	0.15	0.04
NO RESPONSE	151	27.96	168	25.15	163	23.76	24.95
32 NUMBER FILMSTRIP VIEWERS/CASSETTE PLAYERS FOR STUDENT TO GET OCC INFO							
11+	77	14.26	56	8.38	78	11.37	9.81
9 - 10	37	6.85	36	5.39	32	4.66	5.29
7 - 8	21	3.89	17	2.54	22	3.21	2.86
5 - 6	61	11.30	76	11.38	93	13.56	12.03
3 - 4	74	13.70	105	15.72	116	16.91	15.89
1 - 2	62	11.48	127	19.01	119	17.35	17.82
0	44	8.15	72	10.78	44	6.41	9.20
NOT APPLICABLE	1	0.19	0	0.0	0	0.0	0.02
DON'T KNOW	3	0.56	3	0.45	2	0.29	0.41
NO RESPONSE	160	29.63	176	26.35	180	26.24	26.58
33A AV HRS/DAY FILMSTRIP VIEWER/CASSETTE PLAYER AVAILABLE TO GET OCC INFO							
10.01+	1	0.19	2	0.30	4	0.58	0.38
8.01 - 10.00	6	1.11	3	0.45	13	1.90	0.95
6.01 - 8.00	152	28.15	198	29.64	258	37.61	31.93
4.01 - 6.00	148	27.41	166	24.85	156	22.74	24.40
2.01 - 4.00	19	3.52	26	3.89	18	2.62	3.47
.01 - 2.00	10	1.85	21	3.14	14	2.04	2.69
0.00	7	1.30	12	1.80	7	1.02	1.51
NOT APPLICABLE	1	0.19	1	0.15	1	0.15	0.15
DON'T KNOW	3	0.56	4	0.60	5	0.73	0.63
NO RESPONSE	193	35.74	235	35.18	210	30.61	33.79

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
33B AV HRS/DAY FILMSTRIP VIEWER/CASSETTE PLAYER USED TO GET OCC INFO							
10.01+	0	0.0	0	0.0	0	0.0	0.0
8.01 - 10.00	0	0.0	0	0.0	1	0.15	0.04
6.01 - 8.00	9	1.67	5	0.75	11	1.60	1.09
4.01 - 6.00	32	5.93	12	1.80	18	2.62	2.41
2.01 - 4.00	42	7.78	38	5.69	55	8.02	6.58
.01 - 2.00	173	32.04	267	39.97	301	43.88	40.43
0.00	36	6.67	58	8.68	42	6.12	7.71
NOT APPLICABLE	4	0.74	2	0.30	2	0.29	0.34
DON'T KNOW	28	5.19	31	4.64	28	4.08	4.51
NO RESPONSE	216	40.00	255	38.17	228	33.24	36.78
34 NUMBER MICROFICHE VIEWERS/READER-PRINTERS FOR STUDENT TO GET OCC INFO							
11+	2	0.37	2	0.30	2	0.29	0.30
9 - 10	0	0.0	1	0.15	5	0.73	0.31
7 - 8	4	0.74	0	0.0	6	0.87	0.33
5 - 6	13	2.41	6	0.90	12	1.75	1.29
3 - 4	39	7.22	26	3.89	68	9.91	6.03
1 - 2	179	33.15	261	39.07	245	35.71	37.48
0	143	26.48	194	29.04	167	24.34	27.35
NOT APPLICABLE	2	0.37	1	0.15	2	0.29	0.21
DON'T KNOW	0	0.0	2	0.30	2	0.29	0.27
NO RESPONSE	158	29.26	175	26.20	177	25.80	26.32
35A AV HRS/DAY MICROFICHE VIEWER/READER-PRINTER AVAILABLE TO GET OCC INFO							
10.01+	0	0.0	0	0.0	3	0.44	0.13
8.01 - 10.00	5	0.93	4	0.60	12	1.75	0.98
6.01 - 8.00	127	23.52	160	23.95	194	28.28	25.22
4.01 - 6.00	87	16.11	108	16.17	115	16.76	16.33
2.01 - 4.00	8	1.48	11	1.65	8	1.17	1.48
.01 - 2.00	2	0.37	8	1.20	6	0.87	1.02
0.00	31	5.74	25	3.74	28	4.08	4.02
NOT APPLICABLE	9	1.67	2	0.30	8	1.17	0.69
DON'T KNOW	2	0.37	2	0.30	1	0.15	0.26
NO RESPONSE	269	49.81	348	52.10	311	45.34	49.77

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
35B AV HRS/DAY MICROFICHE VIEWER/READER-PRINTER USED TO GET OCC INFO							
10.01+	0	0.0	0	0.0	0	0.0	0.0
8.01 - 10.00	0	0.0	0	0.0	0	0.0	0.0
6.01 - 8.00	7	1.30	7	1.05	9	1.31	1.15
4.01 - 6.00	20	3.70	7	1.05	20	2.92	1.85
2.01 - 4.00	30	5.56	32	4.79	46	6.71	5.44
.01 - 2.00	113	20.93	195	29.19	207	30.17	28.74
0.00	57	10.56	45	6.74	61	8.89	7.73
NOT APPLICABLE	9	1.67	2	0.30	7	1.02	0.64
DON'T KNOW	20	3.70	17	2.54	15	2.19	2.53
NO RESPONSE	284	52.59	363	54.34	321	46.79	51.82
36 TO WHAT YEAR DOES MOST OF THE WAGE/SALARY INFO ON MICROFICHE APPLY							
1978 - 79	144	26.67	178	26.65	178	25.95	26.41
1976 - 77	44	8.15	58	8.68	82	11.95	9.63
1974 - 75	16	2.96	14	2.10	28	4.08	2.78
1973 OR EARLIER	5	0.93	10	1.50	6	0.87	1.25
NOT APPLICABLE	8	1.48	3	0.45	14	2.04	1.03
DON'T KNOW	38	7.04	50	7.49	49	7.14	7.33
NO RESPONSE	285	52.78	355	53.14	329	47.96	51.47
37 NUMBER SETS NEEDLESORT/KEYSORT MATERIALS FOR STUDENT TO GET OCC INFO							
11+	1	0.19	1	0.15	4	0.58	0.29
9 - 10	2	0.37	1	0.15	0	0.0	0.12
7 - 8	0	0.0	0	0.0	0	0.0	0.0
5 - 6	6	1.11	6	0.90	4	0.58	0.82
3 - 4	2	0.37	8	1.20	23	3.35	1.79
1 - 2	58	10.74	122	18.26	106	15.45	16.72
0	299	55.37	341	51.05	367	53.50	52.13
NOT APPLICABLE	1	0.19	0	0.0	1	0.15	0.06
DON'T KNOW	1	0.19	4	0.60	1	0.15	0.42
NO RESPONSE	170	31.48	185	27.69	180	26.24	27.55

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
38A AV HRS/DAY NEEDLESORT/KEYSORT AVAILABLE STUDENT USE TO GET OCC INFO							
10.01+	0	0.0	1	0.15	1	0.15	0.14
8.01 - 10.00	0	0.0	1	0.15	3	0.44	0.22
6.01 - 8.00	31	5.74	74	11.08	78	11.37	10.69
4.01 - 6.00	33	6.11	45	6.74	44	6.41	6.58
2.01 - 4.00	3	0.56	9	1.35	4	0.58	1.04
.01 - 2.00	0	0.0	4	0.60	5	0.73	0.59
0.00	50	9.26	50	7.49	41	5.98	7.17
NOT APPLICABLE	6	1.11	3	0.45	8	1.17	0.73
DON'T KNOW	2	0.37	4	0.60	2	0.29	0.48
NO RESPONSE	415	76.85	477	71.41	500	72.89	72.27
38B AV HRS/DAY NEEDLESORT/KEYSORT USED BY STUDENT TO GET OCC INFO							
10.01+	0	0.0	0	0.0	0	0.0	0.0
8.01 - 10.00	0	0.0	0	0.0	0	0.0	0.0
6.01 - 8.00	1	0.19	0	0.0	2	0.29	0.11
4.01 - 6.00	4	0.74	4	0.60	5	0.73	0.65
2.01 - 4.00	6	1.11	11	1.65	15	2.19	1.76
.01 - 2.00	43	7.96	94	14.07	83	12.10	12.91
0.00	55	10.19	64	9.58	64	9.33	9.55
NOT APPLICABLE	6	1.11	3	0.45	7	1.02	0.68
DON'T KNOW	6	1.11	10	1.50	4	0.58	1.18
NO RESPONSE	419	77.59	482	72.16	506	73.76	73.05
39 DOES YOUR SCHOOL OFFER SCHOOL ARRANGED EXPERIENCES,SIMULATIONS,ETC. ?							
YES	488	90.37	580	86.83	621	90.52	88.19
NO	16	2.96	42	6.29	20	2.92	4.95
NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	36	6.67	46	6.89	45	6.56	6.76
40A DOES SCHOOL OFFER COURSES IN CAREER PLANNING ?							
REQUIRED OF ALL STUDENTS	70	12.96	63	9.43	92	13.41	10.95
AVAILABLE TO ALL STUDENTS	138	25.56	138	20.66	155	22.59	21.66
AVAILABLE ONLY TO STUDENTS IN CERTAIN CURRICULA	78	14.44	103	15.42	110	16.03	15.51
NOT OFFERED	200	37.04	275	41.17	269	39.21	40.16
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	54	10.00	89	13.32	60	8.75	11.61

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
40B DOES SCHOOL OFFER OCC INFO UNITS IN SUBJECT MATTER COURSES ?							
REQUIRED OF ALL STUDENTS	62	11.48	87	13.02	80	11.66	12.46
AVAILABLE TO ALL STUDENTS	185	34.26	187	27.99	193	28.13	28.56
AVAILABLE ONLY TO STUDENTS IN CERTAIN CURRICULA	189	35.00	229	34.28	311	45.34	37.70
NOT OFFERED	54	10.00	81	12.13	56	8.16	10.71
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	50	9.26	84	12.57	46	6.71	10.47
40C DOES SCHOOL OFFER EXPLORATORY WORK-EXPERIENCE PROGRAMS ?							
REQUIRED OF ALL STUDENTS	15	2.78	5	0.75	13	1.90	1.28
AVAILABLE TO ALL STUDENTS	222	41.11	154	23.05	304	44.31	31.15
AVAILABLE ONLY TO STUDENTS IN CERTAIN CURRICULA	240	44.44	268	40.12	257	37.46	39.64
NOT OFFERED	31	5.74	151	22.60	75	10.93	17.51
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	32	5.93	90	13.47	37	5.39	10.32
40D DOES SCHOOL OFFER CAREER DAYS ?							
REQUIRED OF ALL STUDENTS	67	12.41	97	14.52	89	12.97	13.85
AVAILABLE TO ALL STUDENTS	265	49.07	308	46.11	321	46.79	46.53
AVAILABLE ONLY TO STUDENTS IN CERTAIN CURRICULA	51	9.44	75	11.23	56	8.16	10.12
NOT OFFERED	109	20.19	120	17.96	170	24.78	20.23
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	48	8.89	68	10.18	50	7.29	9.17
40E DOES SCHOOL OFFER JOB SITE TOURS OR VISITS ?							
REQUIRED OF ALL STUDENTS	7	1.30	10	1.50	7	1.02	1.33
AVAILABLE TO ALL STUDENTS	200	37.04	183	27.40	222	32.36	29.74
AVAILABLE ONLY TO STUDENTS IN CERTAIN CURRICULA	255	47.22	301	45.06	323	47.08	45.83
NOT OFFERED	43	7.96	100	14.97	95	13.85	13.99
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	35	6.48	74	11.08	39	5.69	9.01
40F DOES SCHOOL OFFER JOB SHADOWING ?							
REQUIRED OF ALL STUDENTS	6	1.11	4	0.60	0	0.0	0.46
AVAILABLE TO ALL STUDENTS	77	14.26	45	6.74	126	18.37	10.96
AVAILABLE ONLY TO STUDENTS IN CERTAIN CURRICULA	151	27.96	115	17.22	131	19.10	18.72
NOT OFFERED	247	45.74	400	59.88	375	54.66	56.97
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	59	10.93	104	15.57	54	7.87	12.78

(CONTINUED)

ALL SCHOOLS

ITEMS AND ALTERNATIVES	STRATUM1 FREQ	STRATUM1 PERCENT	STRATUM2 FREQ	STRATUM2 PERCENT	STRATUM3 FREQ	STRATUM3 PERCENT	NATL EST PERCENT
NUMBER OF OBSERVATIONS	540		668		686		
40G DOES SCHOOL OFFER SIMULATIONS ?							
REQUIRED OF ALL STUDENTS	5	0.93	5	0.75	4	0.58	0.71
AVAILABLE TO ALL STUDENTS	108	20.00	76	11.38	92	13.41	12.75
AVAILABLE ONLY TO STUDENTS IN CERTAIN CURRICULA	82	15.19	88	13.17	98	14.29	13.68
NOT OFFERED	277	51.30	394	58.98	429	62.54	59.34
DON'T KNOW	0	0.0	0	0.0	1	0.15	0.04
NO RESPONSE	68	12.59	105	15.72	62	9.04	13.38
41A AT WHAT GRADE ARE SCHOOL COURSES IN CARER PLANNING OFFERED ?							
GRADE 10	218	40.37	194	29.04	246	35.86	32.10
GRADE 11	174	32.22	164	24.55	207	30.17	26.93
GRADE 12	166	30.74	181	27.10	202	29.45	28.11
NOT OFFERED	221	40.93	306	45.81	300	43.73	44.70
DON'T KNOW	1	0.19	0	0.0	0	0.0	0.02
NO RESPONSE	59	10.93	83	12.43	62	9.04	11.24
41B AT WHAT GRADE ARE OCC INFO UNITS IN SUBJECT MATTER COURSES OFFERED ?							
GRADE 10	354	65.56	393	58.83	479	69.83	62.74
GRADE 11	358	66.30	393	58.83	453	66.03	61.64
GRADE 12	330	61.11	406	60.78	442	64.43	61.87
NOT OFFERED	69	12.78	99	14.82	82	11.95	13.75
DON'T KNOW	1	0.19	0	0.0	0	0.0	0.02
NO RESPONSE	47	8.70	68	10.18	45	6.56	8.93
41C AT WHAT GRADE ARE EXPLORATORY WORK-EXPERIENCE PROGRAMS OFFERED ?							
GRADE 10	149	27.59	91	13.62	151	22.01	17.41
GRADE 11	390	72.22	266	39.82	406	59.18	48.58
GRADE 12	436	80.74	416	62.28	549	80.03	69.29
NOT OFFERED	38	7.04	167	25.00	83	12.10	19.43
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	33	6.11	70	10.48	34	4.96	8.39

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
42A NUMBER STUDENTS/YR TAKE PART IN COURSES IN CAREER PLANNING ?							
601+	50	9.26	6	0.90	37	5.39	3.01
401 - 600	21	3.89	5	0.75	31	4.52	2.18
201 - 400	56	10.37	30	4.49	48	7.00	5.77
101 - 200	48	8.89	42	6.29	54	7.87	7.00
51 - 100	49	9.07	64	9.58	63	9.18	9.40
1 - 50	29	5.37	129	19.31	78	11.37	15.63
0	9	1.67	13	1.95	17	2.48	2.08
NOT APPLICABLE	232	42.96	298	44.61	301	43.88	44.20
DON'T KNOW	3	0.56	1	0.15	2	0.29	0.23
NO RESPONSE	43	7.96	80	11.98	55	8.02	10.40
42B NUMBER STUDENTS/YR TAKE PART IN OCC INFO UNITS IN SUBJ MATTER COURSES							
601+	121	22.41	25	3.74	110	16.03	9.16
401 - 600	65	12.04	26	3.89	62	9.04	6.18
201 - 400	82	15.19	71	10.63	127	18.51	13.44
101 - 200	70	12.96	112	16.77	94	13.70	15.47
51 - 100	36	6.67	113	16.92	75	10.93	14.16
1 - 50	21	3.89	136	20.36	46	6.71	14.70
0	6	1.11	3	0.45	4	0.58	0.55
NOT APPLICABLE	67	12.41	99	14.82	87	12.68	13.94
DON'T KNOW	18	3.33	12	1.80	20	2.92	2.27
NO RESPONSE	54	10.00	71	10.63	61	8.89	10.03
42C NUMBER STUDENTS/YR TAKE PART IN EXPLORATORY WORK-EXPERIENCE PROGRAMS							
601+	12	2.22	3	0.45	2	0.29	0.56
401 - 600	9	1.67	3	0.45	4	0.58	0.60
201 - 400	80	14.81	8	1.20	51	7.43	4.31
101 - 200	142	26.30	36	5.39	119	17.35	10.89
51 - 100	108	20.00	76	11.38	143	20.85	15.03
1 - 50	100	18.52	297	44.46	233	33.97	38.91
0	4	0.74	12	1.80	10	1.46	1.60
NOT APPLICABLE	34	6.30	149	22.31	67	9.77	17.02
DON'T KNOW	5	0.93	1	0.15	3	0.44	0.31
NO RESPONSE	46	8.52	83	12.43	54	7.87	10.67

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS	STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
42D NUMBER STUDENTS/YR TAKE PART IN CAREER DAYS							
601+	167	30.93	43	6.44	145	21.14	13.10
401 - 600	48	8.89	22	3.29	58	8.45	5.37
201 - 400	55	10.19	62	9.28	73	10.64	9.77
101 - 200	39	7.22	85	12.72	56	8.16	10.83
51 - 100	29	5.37	87	13.02	49	7.14	10.53
1 - 50	21	3.89	159	23.80	56	8.16	17.22
0	9	1.67	8	1.20	16	2.33	1.59
NOT APPLICABLE	107	19.81	119	17.81	168	24.49	20.02
DON'T KNOW	4	0.74	3	0.45	4	0.58	0.52
NO RESPONSE	61	11.30	80	11.98	61	8.89	10.96
42E NUMBER STUDENTS/YR TAKE PART IN JOB SITE TOURS OR VISITS							
601+	34	6.30	5	0.75	15	2.19	1.68
401 - 600	39	7.22	6	0.90	27	3.94	2.39
201 - 400	93	17.22	24	3.59	63	9.18	6.51
101 - 200	100	18.52	60	8.98	92	13.41	11.17
51 - 100	69	12.78	124	18.56	126	18.37	17.98
1 - 50	74	13.70	237	35.48	172	25.07	30.33
0	6	1.11	9	1.35	11	1.60	1.40
NOT APPLICABLE	62	11.48	110	16.47	107	15.60	15.74
DON'T KNOW	11	2.04	11	1.65	15	2.19	1.85
NO RESPONSE	52	9.63	82	12.28	58	8.45	10.86
42F NUMBER STUDENTS/YR TAKE PART IN JOB SHADOWING							
601+	7	1.30	2	0.30	0	0.0	0.29
401 - 600	3	0.56	0	0.0	3	0.44	0.18
201 - 400	16	2.96	4	0.60	7	1.02	0.94
101 - 200	24	4.44	7	1.05	11	1.60	1.52
51 - 100	29	5.37	16	2.40	26	3.79	3.08
1 - 50	124	22.96	114	17.07	175	25.51	20.16
0	35	6.48	48	7.19	44	6.41	6.88
NOT APPLICABLE	243	45.00	377	56.44	345	50.29	53.49
DON'T KNOW	2	0.37	2	0.30	5	0.73	0.44
NO RESPONSE	57	10.56	98	14.67	70	10.20	12.92

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
42G NUMBER STUDENTS/YR TAKE PART IN SIMULATIONS							
601+	21	3.89	3	0.45	8	1.17	0.97
401 - 600	9	1.67	2	0.30	4	0.58	0.51
201 - 400	19	3.52	12	1.80	10	1.46	1.84
101 - 200	26	4.81	16	2.40	19	2.77	2.72
51 - 100	37	6.85	33	4.94	26	3.79	4.75
1 - 50	51	9.44	75	11.23	88	12.83	11.55
0	32	5.93	37	5.54	49	7.14	6.06
NOT APPLICABLE	273	50.56	379	56.74	390	56.85	56.17
DON'T KNOW	4	0.74	6	0.90	8	1.17	0.97
NO RESPONSE	68	12.59	105	15.72	84	12.24	14.36
43A HOW OFTEN DO STUDENTS PARTICIPATE IN CAREER DAYS ?							
MOST DO NOT PARTICIPATE	44	8.15	53	7.93	86	12.54	9.36
MOST PARTICIPATE ONCE	197	36.48	285	42.66	222	32.36	38.91
MOST PARTICIPATE 2-3 TIMES	115	21.30	126	18.86	141	20.55	19.58
MOST PARTICIPATE 4-MORE TIMES	33	6.11	15	2.25	18	2.62	2.70
NOT OFFERED	108	20.00	122	18.26	167	24.34	20.26
DON'T KNOW	12	2.22	10	1.50	16	2.33	1.82
NO RESPONSE	31	5.74	57	8.53	36	5.25	7.27
43B HOW OFTEN DO STUDENTS PARTICIPATE IN JOB SITE TOURS OR VISITS ?							
MOST DO NOT PARTICIPATE	134	24.81	129	19.31	184	26.82	22.08
MOST PARTICIPATE ONCE	181	33.52	198	29.64	204	29.74	29.98
MOST PARTICIPATE 2-3 TIMES	82	15.19	116	17.37	91	13.27	15.90
MOST PARTICIPATE 4-MORE TIMES	27	5.00	21	3.14	21	3.06	3.28
NOT OFFERED	48	8.89	104	15.57	106	15.45	14.93
DON'T KNOW	36	6.67	34	5.09	43	6.27	5.59
NO RESPONSE	32	5.93	66	9.88	37	5.39	8.14
43C HOW OFTEN DO STUDENTS PARTICIPATE IN CONFERENCES WITH COMMUNITY REPS ?							
MOST DO NOT PARTICIPATE	100	18.52	132	19.76	189	27.55	22.02
MOST PARTICIPATE ONCE	156	28.89	159	23.80	164	23.91	24.26
MOST PARTICIPATE 2-3 TIMES	104	19.26	77	11.53	90	13.12	12.68
MOST PARTICIPATE 4-MORE TIMES	36	6.67	31	4.64	24	3.50	4.46
NOT OFFERED	51	9.44	135	20.21	123	17.93	18.54
DON'T KNOW	61	11.30	69	10.33	60	8.75	9.92
NO RESPONSE	32	5.93	65	9.73	36	5.25	8.01

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
43D HOW OFTEN DO STUDENTS PARTICIPATE IN SIMULATIONS ?							
MOST DO NOT PARTICIPATE	107	19.81	110	16.47	152	22.16	18.49
MOST PARTICIPATE ONCE	55	10.19	65	9.73	48	7.00	8.92
MOST PARTICIPATE 2-3 TIMES	26	4.81	26	3.89	20	2.92	3.67
MOST PARTICIPATE 4-MORE TIMES	13	2.41	13	1.95	8	1.17	1.75
NOT OFFERED	237	43.89	345	51.65	364	53.06	51.35
DON'T KNOW	45	8.33	24	3.59	39	5.69	4.65
NO RESPONSE	57	10.56	85	12.72	55	8.02	11.08
44A HOW MUCH TIME DOES STUDENT SPEND IN COURSES IN CAREER PLANNING ?							
ONE DAY - ONE WEEK	55	10.19	48	7.19	58	8.45	7.83
GREATER THAN ONE WEEK BUT LESS THAN ONE SEMESTER	94	17.41	117	17.51	133	19.39	18.06
ONE SEMESTER	73	13.52	89	13.32	94	13.70	13.44
MORE THAN ONE SEMESTER	45	8.33	36	5.39	47	6.85	6.09
NOT OFFERED	205	37.96	300	44.91	294	42.86	43.62
DON'T KNOW	28	5.19	13	1.95	19	2.77	2.48
NO RESPONSE	40	7.41	65	9.73	41	5.98	8.36
44B HOW MUCH TIME DOES STUDENT SPEND IN OCC INFO IN SUBJECT MATTER COURSES							
ONE DAY - ONE WEEK	112	20.74	122	18.26	184	26.82	21.09
GREATER THAN ONE WEEK BUT LESS THAN ONE SEMESTER	200	37.04	283	42.37	257	37.46	40.35
ONE SEMESTER	37	6.85	47	7.04	33	4.81	6.33
MORE THAN ONE SEMESTER	53	9.81	34	5.09	46	6.71	6.00
NOT OFFERED	55	10.19	80	11.98	69	10.06	11.22
DON'T KNOW	47	8.70	39	5.84	60	8.75	6.98
NO RESPONSE	36	6.67	63	9.43	37	5.39	7.94
44C HOW MUCH TIME DOES STUDENT SPEND IN EXPLORATORY WORK EXPERIENCE ?							
ONE DAY - ONE WEEK	12	2.22	22	3.29	30	4.37	3.53
GREATER THAN ONE WEEK BUT LESS THAN ONE SEMESTER	32	5.93	28	4.19	32	4.66	4.49
ONE SEMESTER	50	9.26	49	7.34	63	9.18	8.06
MORE THAN ONE SEMESTER	348	64.44	316	47.31	422	61.52	53.13
NOT OFFERED	37	6.85	166	24.85	84	12.24	19.37
DON'T KNOW	23	4.26	20	2.99	20	2.92	3.08
NO RESPONSE	38	7.04	67	10.03	35	5.10	8.24

(CONTINUED)

ALL SCHOOLS

	STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS	540		668		686		
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
44D HOW MUCH TIME DOES STUDENT SPEND IN SCHOOL-ARRANGED VOLUNTEER SERVICE?							
ONE DAY - ONE WEEK	68	12.59	75	11.23	57	8.31	10.44
GREATER THAN ONE WEEK BUT LESS THAN ONE SEMESTER	75	13.89	55	8.23	68	9.91	9.24
ONE SEMESTER	54	10.00	29	4.34	70	10.20	6.63
MORE THAN ONE SEMESTER	64	11.85	41	6.14	95	13.85	9.00
NOT OFFERED	166	30.74	335	50.15	288	41.98	45.88
DON'T KNOW	72	13.33	58	8.68	63	9.18	9.24
NO RESPONSE	41	7.59	75	11.23	45	6.56	9.46
44E HOW MUCH TIME DOES STUDENT SPEND IN JOB SHADOWING ?							
ONE DAY - ONE WEEK	84	15.56	83	12.43	133	19.39	14.83
GREATER THAN ONE WEEK BUT LESS THAN ONE SEMESTER	49	9.07	23	3.44	38	5.54	4.58
ONE SEMESTER	20	3.70	11	1.65	21	3.06	2.26
MORE THAN ONE SEMESTER	24	4.44	15	2.25	23	3.35	2.78
NOT OFFERED	274	50.74	428	64.07	379	55.25	60.13
DON'T KNOW	42	7.78	34	5.09	45	6.56	5.77
NO RESPONSE	47	8.70	74	11.08	47	6.85	9.56
45A HOW MANY OCC ARE COVERED BY COURSES IN CAREER PLANNING ?							
1 - 10	54	10.00	59	8.83	81	11.81	9.84
11 - 30	54	10.00	86	12.87	67	9.77	11.65
31 - 50	29	5.37	38	5.69	33	4.81	5.39
50+	90	16.67	85	12.72	125	18.22	14.75
NOT OFFERED	213	39.44	298	44.61	296	43.15	43.66
DON'T KNOW	48	8.89	31	4.64	39	5.69	5.33
NO RESPONSE	52	9.63	71	10.63	45	6.56	9.28
45B HOW MANY OCC ARE COVERED BY OCC INFO UNITS IN SUBJECT MATTER COURSES?							
1 - 10	86	15.93	118	17.66	125	18.22	17.66
11 - 30	113	20.93	146	21.86	153	22.30	21.89
31 - 50	49	9.07	63	9.43	55	8.02	8.96
50+	107	19.81	128	19.16	156	22.74	20.30
NOT OFFERED	53	9.81	78	11.68	67	9.77	10.91
DON'T KNOW	86	15.93	68	10.18	91	13.27	11.62
NO RESPONSE	46	8.52	67	10.03	39	5.69	8.55

(CONTINUED)

ALL SCHOOLS

		STRATUM1		STRATUM2		STRATUM3	NATL EST
NUMBER OF OBSERVATIONS		540		668		686	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
45C HOW MANY OCC ARE COVERED BY EXPLORARORY WORK-EXPERIENCE PROGRAMS?							
1 - 10	136	25.19	201	30.09	185	26.97	28.67
11 - 30	124	22.96	125	18.71	159	23.18	20.44
31 - 50	69	12.78	32	4.79	77	11.22	7.46
50+	80	14.81	32	4.79	79	11.52	7.73
NOT OFFERED	37	6.85	167	25.00	89	12.97	19.69
DON'T KNOW	51	9.44	38	5.69	58	8.45	6.86
NO RESPONSE	43	7.96	73	10.93	39	5.69	9.05
45D HOW MANY OCC ARE COVERED BY JOB SHADOWING?							
1 - 10	93	17.22	79	11.83	119	17.35	13.98
11 - 30	48	8.89	39	5.84	47	6.85	6.41
31 - 50	12	2.22	9	1.35	15	2.19	1.68
50+	25	4.63	10	1.50	29	4.23	2.61
NOT OFFERED	264	48.89	429	64.22	389	56.71	60.50
DON'T KNOW	45	8.33	27	4.04	35	5.10	4.74
NO RESPONSE	53	9.81	75	11.23	52	7.58	9.97
45E HOW MANY OCC ARE COVERED BY SIMULATIONS?							
1 - 10	54	10.00	39	5.84	50	7.29	6.64
11 - 30	31	5.74	32	4.79	59	8.60	6.04
31 - 50	20	3.70	14	2.10	13	1.90	2.17
50+	41	7.59	37	5.54	25	3.64	5.13
NOT OFFERED	283	52.41	432	64.67	438	63.85	63.27
DON'T KNOW	52	9.63	31	4.64	37	5.39	5.31
NO RESPONSE	59	10.93	83	12.43	64	9.33	11.33
46 HOW ARE STUDENTS MADE AWARE OF SCH-ARRANGED EXPER,SIMULATIONS,ETC?							
LISTED IN COURSE OFFERINGS	241	44.63	234	35.03	340	49.56	40.30
PRESENTATIONS TO STUDENT BODY	346	64.07	314	47.01	408	59.48	52.29
PRESENTATIONS TO PARENTS	149	27.59	103	15.42	198	28.86	20.60
ADS ON RADIO AND TV	56	10.37	51	7.63	29	4.23	6.82
TEACHERS RECOMMEND STUDENTS	228	42.22	180	26.95	231	33.67	30.33
CONFERENCES W/COUNSELORS	432	80.00	484	72.46	561	81.78	75.91
OTHER	102	18.89	78	11.68	165	24.05	16.10
NO PARTICULAR METHOD	46	8.52	103	15.42	50	7.29	12.30
DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
NO RESPONSE	28	5.19	57	8.53	28	4.08	6.86

(CONTINUED)

ALL SCHOOLS

NUMBER OF OBSERVATIONS		STRATUM1 540		STRATUM2 668		STRATUM3 686		NATL EST
	ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
47	TYPE FOLLOW-UP OF PARTICIPANTS SCH-ARRANGED EXPER,SIMULATIONS,ETC							
	CONFERENCES	329	60.93	354	52.99	421	61.37	56.21
	GROUP DISCUSSION	231	42.78	210	31.44	247	36.01	33.81
	TEST OR QUESTIONAIRRE	164	30.37	135	20.21	178	25.95	22.85
	STUDENT REPORT-ORAL	198	36.67	161	24.10	208	30.32	27.09
	STUDENT REPORT-WRITTEN	183	33.89	165	24.70	249	36.30	29.04
	OTHER	29	5.37	30	4.49	45	6.56	5.20
	NO PARTICULAR METHOD	112	20.74	184	27.54	160	23.32	25.62
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	30	5.56	57	8.53	29	4.23	6.94
48	SOURCES OF INFO AVAILABLE AT SCHOOL OF LOCAL JOB OPPORTUNITIES							
	LISTINGS FROM STATE AND/OR DEPART. OF LABOR	342	63.33	301	45.06	406	59.18	50.96
	TABULATIONS OF LISTINGS FROM NEWSPAPERS ADS	130	24.07	115	17.22	124	18.08	18.07
	NOTICES JOBS AVAILABLE LOCALLY	341	63.15	327	48.95	428	62.39	54.28
	LISTS OF CONTACTS AT EMPLOYMENT AGENCIES	262	48.52	240	35.93	297	43.29	39.26
	LISTS OF REPS AT UNIONS	101	18.70	32	4.79	106	15.45	9.28
	INFO FROM LOCAL GOV.	344	63.70	281	42.07	376	54.81	47.84
	INFO FROM FORMER STUDENTS	162	30.00	165	24.70	174	25.36	25.35
	OTHER	68	12.59	56	8.38	89	12.97	10.15
	NONE	32	5.93	109	16.32	54	7.87	12.79
	NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	11	2.04	23	3.44	5	0.73	2.48
49	OCC INFO RESOURCES AT SCHOOL DESIGNED FOR THE HANDICAPPED							
	BRAILLE	38	7.04	14	2.10	48	7.00	4.03
	TAPES	69	12.78	61	9.13	105	15.31	11.34
	SOUND AMPLIFICATION	56	10.37	52	7.78	67	9.77	8.61
	SIMPLIFIED READING	256	47.41	273	40.87	319	46.50	43.13
	OTHER	60	11.11	33	4.94	72	10.50	7.18
	NONE	220	40.74	342	51.20	280	40.82	47.04
	DON'T KNOW	3	0.56	2	0.30	1	0.15	0.27
	NO RESPONSE	22	4.07	20	2.99	31	4.52	3.55
50	OCC INFO PROVIDED BY SCHOOL IN LANGUAGE OTHER THAN ENGLISH							
	SPANISH	122	22.59	57	8.53	111	16.18	12.11
	FRENCH	29	5.37	28	4.19	28	4.08	4.26
	OTHER	21	3.89	15	2.25	17	2.48	2.46
	NONE	393	72.78	572	85.63	551	80.32	82.78
	DON'T KNOW	1	0.19	1	0.15	0	0.0	0.11
	NO RESPONSE	21	3.89	18	2.69	15	2.19	2.64

(CONTINUED)

ALL SCHOOLS

		STRATUM1		STRATUM2		STRATUM3		NATL EST
NUMBER OF OBSERVATIONS		540		668		686		
	ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	PERCENT
51	DOES EXTERNAL RESOURCE CENTER PROVIDE SUBSTANTIAL PROPORTION OCC INFO?							
	YES	175	32.41	226	33.83	178	25.95	31.25
	NO	342	63.33	409	61.23	485	70.70	64.26
	NOT APPLICABLE	0	0.0	0	0.0	0	0.0	0.0
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	23	4.26	33	4.94	23	3.35	4.39
52	AUSPICES UNDER WHICH THE CENTER IS MAINTAINED							
	STATE EDUC INFO CENTER	80	14.81	121	18.11	74	10.79	15.56
	STATE EMPLOYMENT SERVICE	79	14.63	83	12.43	56	8.16	11.30
	OTHER STATE AGENCY	30	5.56	39	5.84	23	3.35	5.04
	COUNTY	49	9.07	40	5.99	57	8.31	6.97
	SCHOOL DISTRICT	131	24.26	75	11.23	94	13.70	13.12
	LOCAL COLLEGE	47	8.70	55	8.23	33	4.81	7.22
	OTHER	22	4.07	35	5.24	33	4.81	5.00
	NOT APPLICABLE	1	0.19	0	0.0	3	0.44	0.15
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	339	62.78	428	64.07	479	69.83	65.66
53	TYPES OF RESOURCES MADE AVAILABLE BY CENTER FOR USE BY STUDENTS							
	PUBLICATIONS	167	30.93	193	28.89	167	24.34	27.65
	FILMS, OTHER A-V	169	31.30	178	26.65	167	24.34	26.32
	MICROFICHE	90	16.67	117	17.51	90	13.12	16.07
	COMPUTER TERMINALS	60	11.11	49	7.34	78	11.37	8.90
	KEY/NEEDLESORTS	20	3.70	53	7.93	42	6.12	7.00
	SPEAKERS,CAREER DAYS	142	26.30	137	20.51	138	20.12	20.88
	CENTER ARRANGED EXPLORATORY WORK EXPERIENCES	85	15.74	75	11.23	95	13.85	12.42
	OTHER	16	2.96	12	1.80	14	2.04	1.97
	NOT APPLICABLE	2	0.37	0	0.0	3	0.44	0.17
	DON'T KNOW	0	0.0	0	0.0	0	0.0	0.0
	NO RESPONSE	334	61.85	422	63.17	471	68.66	64.68

APPENDIX E

Responses to Student Questionnaire

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q01 WHAT GRADE ARE YOU IN NOW?						
10TH	475	29.72	489	31.45	560	32.39
11TH	549	34.36	533	34.28	573	33.14
12TH	569	35.61	525	33.76	590	34.12
OTHER	2	0.13	3	0.19	1	0.06
NOT SURE	1	0.06	3	0.19	2	0.12
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	2	0.13	0	0.0	0	0.0
NO RESPONSE	0	0.0	2	0.13	3	0.17
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q02 WHEN DID YOU START TO GO TO SCHOOL?						
THIS SCHOOL YEAR	256	16.02	155	9.97	352	20.36
LAST YEAR OR BEFORE	1334	83.48	1393	89.58	1371	79.29
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	8	0.50	7	0.45	6	0.35
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q03 PRESENT HIGH SCHOOL PROGRAM?						
GENERAL	660	41.30	774	49.77	644	37.25
ACADEMIC/COLLEGE PREP.	633	39.61	517	33.25	790	45.69
VOC/TECH	212	13.27	189	12.15	226	13.07
OTHER	49	3.07	39	2.51	36	2.08
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	7	0.44	9	0.58	16	0.93
NO RESPONSE	37	2.32	27	1.74	17	0.98
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q04 COMPARE YOUR READING ABILITY TO YOUR CLASSMATES						
TOP FIFTH	481	30.10	423	27.20	502	29.03
UPPER MIDDLE FIFTH	495	30.98	523	33.63	531	30.71
MIDDLE FIFTH	531	33.23	504	32.41	573	33.14
LOWER MIDDLE FIFTH	70	4.38	85	5.47	95	5.49
BOTTOM FIFTH	13	0.81	8	0.51	13	0.75
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	1	0.06	4	0.26	3	0.17
NO RESPONSE	7	0.44	8	0.51	12	0.69
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q05 WHAT DO YOU PLAN TO DO WHEN YOU LEAVE HIGH SCHOOL?						
VOC/TECH/BUSINESS/TRADE SCHOOL	252	15.77	294	18.91	266	15.38
ENTER AN APPRENTICESHIP OR OTJ TRAINING	85	5.32	99	6.37	128	7.40
GO TO 2-YEAR COLLEGE	229	14.33	256	16.46	251	14.52
GO TO 4-YEAR COLLEGE	788	49.31	544	34.98	822	47.54
GO TO WORK IMMEDIATELY	230	14.39	286	18.39	279	16.14
ENTER THE ARMED FORCES	137	8.57	133	8.55	99	5.73
BE A HOMEMAKER FOR OWN FAMILY	20	1.25	70	4.50	42	2.43
NOT DECIDED	158	9.89	218	14.02	183	10.58
OTHER	40	2.50	32	2.06	55	3.18
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	5	0.31	10	0.64	12	0.69
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q06 SEX?						
MALE	696	43.55	663	42.64	839	48.53
FEMALE	896	56.07	888	57.11	885	51.19
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	6	0.38	4	0.26	5	0.29
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q07 WHAT RACE ARE YOU?						
AMERICAN INDIAN OR ALASKAN NATIVE	12	0.75	26	1.67	25	1.45
ASIAN OR PACIFIC ISLANDER	25	1.56	9	0.58	25	1.45
BLACK, NOT OF HISPANIC (SPANISH) ORIGIN	651	40.74	235	15.11	139	8.04
HISPANIC (SPANISH)	147	9.20	18	1.16	93	5.38
WHITE	744	46.56	1248	80.26	1421	82.19
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	4	0.25	3	0.19	4	0.23
NO RESPONSE	15	0.94	16	1.03	22	1.27
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q08 DO YOU HAVE A PHSICAL HANDICAP?						
YES	81	5.07	102	6.56	88	5.09
NO	1493	93.43	1431	92.03	1613	93.29
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	24	1.50	22	1.41	28	1.62
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q09 WHAT KIND OF HANDICAP DO YOU HAVE?						
VISUAL	49	60.49	68	66.67	54	61.36
HEARING	3	3.70	10	9.80	4	4.55
SPEECH	8	9.88	7	6.86	3	3.41
ORTHOPEDIC	2	2.47	9	8.82	2	2.27
OTHER	18	22.22	10	9.80	25	28.41
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	5	6.17	3	2.94	3	3.41
TOTAL	81	5.07	102	6.56	88	5.09
Q10 DOES YOUR SCHOOL HAVE BOOKS LIKE 'THE OCCUPATIONAL OUTLOOK HANDBOOK' ?						
YES	953	59.64	1038	66.75	1094	63.27
NO	34	2.13	29	1.86	26	1.50
NOT SURE	592	37.05	476	30.61	586	33.89
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	2	0.13	2	0.12
NO RESPONSE	19	1.19	10	0.64	21	1.21
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q10 DOES YOUR SCHOOL HAVE MAGAZINES LIKE 'CAREER WORLD' ?						
YES	993	62.14	934	60.06	1066	61.65
NO	57	3.57	77	4.95	56	3.24
NOT SURE	530	33.17	527	33.89	576	33.31
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	1	0.06	3	0.17
NO RESPONSE	18	1.13	16	1.03	28	1.62
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q10 DOES YOUR SCHOOL HAVE PAMPHLETS LIKE 'SRA BRIEFS' ?						
YES	808	50.56	855	54.98	940	54.37
NO	86	5.38	74	4.76	76	4.40
NOT SURE	679	42.49	610	39.23	684	39.56
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	1	0.06	2	0.13	1	0.06
NO RESPONSE	24	1.50	14	0.90	28	1.62
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

	STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS	1598		1555		1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q10 DOES YOUR SCHOOL HAVE REPORTS ABOUT JOBS BY FORMER STUDENTS?						
YES	415	25.97	297	19.10	358	20.71
NO	301	18.84	413	26.56	333	19.26
NOT SURE	849	53.13	825	53.05	1004	58.07
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	1	0.06	1	0.06	2	0.12
NO RESPONSE	32	2.00	19	1.22	32	1.85
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q12 HOW DID YOU LEARN ABOUT PUBLISHED OCCUPATION INFORMATION?						
GUIDANCE COUNSELOR/GUIDANCE STAFF MEMBER	627	45.63	695	50.58	693	46.57
CAREER EDUCATION SPECIALIST	186	13.54	140	10.19	194	13.04
TEACHER IN CLASS	513	37.34	572	41.63	529	35.55
TEACHER OUTSIDE OF CLASS	97	7.06	113	8.22	105	7.06
SCHOOL LIBRARIAN	379	27.58	458	33.33	353	23.72
POSTER OR BULLETIN BOARD	192	13.97	163	11.86	212	14.25
SCHOOL NEWSPAPER	48	3.49	19	1.38	38	2.55
FRIEND AT SCHOOL	272	19.80	309	22.49	311	20.90
GROUP VISIT OR ORIENTATION	164	11.94	111	8.08	190	12.77
OTHER	117	8.52	105	7.64	157	10.55
I DON'T REMEMBER	70	5.09	68	4.95	80	5.38
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	27	1.97	16	1.16	35	2.35
TOTAL	1374	85.98	1374	88.36	1488	86.06
Q13 HOW OFTEN HAVE YOU READ REFERENCE BOOKS THAT DESCRIBE OCCUPATIONS?						
NEVER	290	21.11	300	21.83	347	23.32
ONCE	302	21.98	308	22.42	358	24.06
A FEW TIMES	627	45.63	641	46.65	654	43.95
MANY TIMES	114	8.30	100	7.28	83	5.58
NOT APPLICABLE	0	0.0	0	0.0	1	0.07
DON'T KNOW	3	0.22	1	0.07	1	0.07
NO RESPONSE	38	2.77	24	1.75	44	2.96
TOTAL	1374	85.98	1374	88.36	1488	86.06

(CONTINUED)

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q13 HOW OFTEN HAVE YOU READ MAGAZINES ABOUT OCCUPATIONS?						
NEVER	329	23.94	393	28.60	465	31.25
ONCE	309	22.49	280	20.38	327	21.98
A FEW TIMES	553	40.25	577	41.99	564	37.90
MANY TIMES	146	10.63	94	6.84	84	5.65
NOT APPLICABLE	0	0.0	0	0.0	1	0.07
DON'T KNOW	0	0.0	1	0.07	2	0.13
NO RESPONSE	37	2.69	29	2.11	45	3.02
TOTAL	1374	85.98	1374	88.36	1488	86.06
Q13 HOW OFTEN HAVE YOU READ PAMPHLETS OR BRIEFS ABOUT OCCPATIONS?						
NEVER	443	32.24	470	34.21	513	34.48
ONCE	277	20.16	280	20.38	313	21.03
A FEW TIMES	484	35.23	494	35.95	504	33.87
MANY TIMES	122	8.88	101	7.35	107	7.19
NOT APPLICABLE	0	0.0	0	0.0	1	0.07
DON'T KNOW	1	0.07	0	0.0	0	0.0
NO RESPONSE	47	3.42	29	2.11	50	3.36
TOTAL	1374	85.98	1374	88.36	1488	86.06
Q13 HOW OFTEN HAVE YOU READ REPORTS ABOUT JOBS BY PREVIOUS STUDENTS?						
NEVER	886	64.48	1038	75.55	1136	76.34
ONCE	161	11.72	143	10.41	141	9.48
A FEW TIMES	207	15.07	138	10.04	130	8.74
MANY TIMES	71	5.17	23	1.67	29	1.95
NOT APPLICABLE	0	0.0	0	0.0	1	0.07
DON'T KNOW	2	0.15	0	0.0	0	0.0
NO RESPONSE	47	3.42	32	2.33	51	3.43
TOTAL	1374	85.98	1374	88.36	1488	86.06
Q15 WHAT KIND OF OCCUPATIONAL INFO WERE YOU TRYING TO GET?						
DESCRIPTIONS OF JOB ACTIVITIES	562	44.67	601	48.08	624	47.38
PREREQUISITES FOR A JOB	907	72.10	914	73.12	966	73.35
OUTLOOK FOR JOB OPENINGS IN THE 1980'S	436	34.66	508	40.64	509	38.65
WAGE OR SALARY IN AN OCCUPATION	651	51.75	732	58.56	706	53.61
SATISFACTIONS FROM A JOB	387	30.76	381	30.48	406	30.83
A LIST OF OCCUPATIONS YOU MIGHT LIKE	561	44.59	609	48.72	626	47.53
OTHER KINDS OF INFO ABOUT OCCUPATIONS	136	10.81	127	10.16	155	11.77
NOT LOOKING FOR ANY SPECIAL INFO	60	4.77	74	5.92	75	5.69
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	49	3.90	23	1.84	26	1.97
TOTAL	1258	78.72	1250	80.39	1317	76.17

(CONTINUED)

	STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS	1598		1555		1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q16 DID YOU FIND THE INFO YOU WANTED?						
ALL OF IT	147	12.69	149	12.86	146	11.91
MOST OF IT	565	48.79	579	49.96	603	49.18
SOME OF IT	397	34.28	403	34.77	431	35.15
NONE OF IT	20	1.73	14	1.21	20	1.63
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	1	0.08
NO RESPONSE	29	2.50	14	1.21	25	2.04
TOTAL	1158	72.47	1159	74.53	1226	70.91
Q17 WAS IT HARD TO UNDERSTAND THE INFORMATION?						
YES	30	2.71	25	2.21	21	1.78
SOMETIMES	333	30.03	367	32.45	369	31.27
NO	728	65.64	710	62.78	765	64.83
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	1	0.08
NO RESPONSE	18	1.62	29	2.56	24	2.03
TOTAL	1109	69.40	1131	72.73	1180	68.25
Q18 CAN YOU GET INFORMATION FROM A COMPUTER?						
YES	404	25.28	303	19.49	525	30.36
NO	549	34.36	796	51.19	508	29.38
NOT SURE	575	35.98	417	26.82	625	36.15
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	2	0.12
NO RESPONSE	70	4.38	39	2.51	69	3.99
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q19 HOW DID YOU LEARN ABOUT OCCUPATIONAL INFORMATION ON COMPUTERS?						
GUIDANCE STAFF	210	51.98	157	51.82	262	49.90
CAREER EDUCATION SPECIALIST	84	20.79	50	16.50	102	19.43
TEACHER IN CLASS	122	30.20	115	37.95	181	34.48
TEACHER OUTSIDE OF CLASS	24	5.94	12	3.96	27	5.14
SCHOOL LIBRARIAN	31	7.67	42	13.86	50	9.52
POSTER OR BULLETIN BOARD	28	6.93	14	4.62	36	6.86
SCHOOL NEWSPAPER	12	2.97	4	1.32	15	2.86
FRIEND AT SCHOOL	151	37.38	102	33.66	168	32.00
GROUP VISIT OR ORIENTATION	30	7.43	21	6.93	58	11.05
PAMPHLET OR NOTICE	32	7.92	13	4.29	16	3.05
OTHER	26	6.44	13	4.29	39	7.43
DON'T REMEMBER	12	2.97	7	2.31	19	3.62
NOT APPLICABLE	0	0.0	0	0.0	0	0.0

(CONTINUED)

		STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS		1598		1555		1729	
	ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
	(ITEM CONTINUED)						
Q19	HOW DID YOU LEARN ABOUT OCCUPATIONAL INFORMATION ON COMPUTERS?						
	DON'T KNOW	0	0.0	0	0.0	0	0.0
	NO RESPONSE	3	0.74	2	0.66	3	0.57
	TOTAL	404	25.28	303	19.49	525	30.36
Q20	HOW OFTEN HAVE YOU USED THE COMPUTER TO GET OCCUPATIONAL INFORMATION?						
	NEVER	207	51.24	157	51.82	230	43.81
	ONCE	86	21.29	76	25.08	148	28.19
	A FEW TIMES	84	20.79	52	17.16	114	21.71
	MANY TIMES	20	4.95	18	5.94	30	5.71
	NOT APPLICABLE	0	0.0	0	0.0	1	0.19
	DON'T KNOW	0	0.0	0	0.0	0	0.0
	NO RESPONSE	7	1.73	0	0.0	2	0.38
	TOTAL	404	25.28	303	19.49	525	30.36
Q21	WHAT KIND OF OCC INFO WERE YOU TRYING TO GET?						
	DESCRIPTIONS OF JOB ACTIVITIES	86	45.26	67	45.89	149	51.03
	PREREQUISITES FOR A JOB	142	74.74	111	76.03	225	77.05
	OUTLOOK FOR JOB OPENINGS IN THE 1980'S	73	38.42	59	40.41	149	51.03
	WAGE OR SALARY INFO	98	51.58	86	58.90	179	61.30
	SATISFACTIONS FROM A JOB	46	24.21	45	30.82	102	34.93
	LIST OF OCCUPATIONS YOU MIGHT LIKE	72	37.89	65	44.52	146	50.00
	OTHER INFO	17	8.95	21	14.38	40	13.70
	NOT LOOKING FOR ANY SPECIAL INFO	6	3.16	2	1.37	14	4.79
	NOT APPLICABLE	0	0.0	0	0.0	0	0.0
	DON'T KNOW	0	0.0	0	0.0	0	0.0
	NO RESPONSE	3	1.58	1	0.68	1	0.34
	TOTAL	190	11.89	146	9.39	292	16.89
Q22	DID YOU GET THE INFO YOU WANTED?						
	ALL OF IT	35	19.23	35	24.31	68	24.29
	MOST OF IT	101	55.49	70	48.61	143	51.07
	SOME OF IT	39	21.43	34	23.61	64	22.86
	NONE OF IT	3	1.65	1	0.69	3	1.07
	NOT APPLICABLE	0	0.0	0	0.0	0	0.0
	DON'T KNOW	0	0.0	0	0.0	0	0.0
	NO RESPONSE	4	2.20	4	2.78	2	0.71
	TOTAL	182	11.39	144	9.26	280	16.19

(CONTINUED)

	STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS	1598		1555		1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q23 Was It Hard to Understand The Information?						
YES	7	4.00	4	2.88	10	3.64
SOMETIMES	49	28.00	41	29.50	55	20.00
NO	112	64.00	89	64.03	201	73.09
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	7	4.00	5	3.60	9	3.27
TOTAL	175	10.95	139	8.94	275	15.91
Q24 CAN YOU GET INFO FROM A MICROFICHE?						
YES	407	25.47	358	23.02	536	31.00
NO	413	25.84	565	36.33	383	22.15
NOT SURE	728	45.56	600	38.59	739	42.74
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	1	0.06	4	0.23
NO RESPONSE	50	3.13	31	1.99	67	3.88
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q25 HOW DID YOU LEARN ABOUT OCC INFO ON MICROFICHE?						
GUIDANCE STAFF	143	35.14	157	43.85	157	29.29
CAREER EDUCATION SPECIALIST	57	14.00	47	13.13	108	20.15
TEACHER IN CLASS	111	27.27	111	31.01	156	29.10
TEACHER OUTSIDE OF CLASS	20	4.91	9	2.51	19	3.54
SCHOOL LIBRARIAN	140	34.40	100	27.93	192	35.82
POSTER OR BULLETIN BOARD	13	3.19	9	2.51	15	2.80
SCHOOL NEWSPAPER	9	2.21	2	0.56	4	0.75
FRIEND AT SCHOOL	64	15.72	73	20.39	97	18.10
GROUP VISIT OR ORIENTATION	28	6.88	20	5.59	74	13.81
OTHER	31	7.62	18	5.03	42	7.84
I DON'T REMEMBER	13	3.19	7	1.96	16	2.99
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	5	1.23	3	0.84	1	0.19
TOTAL	407	25.47	358	23.02	536	31.00

(CONTINUED)

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q26 HOW OFTEN HAVE YOU USED THE MICROFICHE TO GET OCCUPATIONAL INFORMATION?						
NEVER	204	50.12	194	54.19	267	49.81
ONCE	80	19.66	71	19.83	126	23.51
A FEW TIMES	104	25.55	80	22.35	115	21.46
MANY TIMES	13	3.19	12	3.35	26	4.85
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	6	1.47	1	0.28	2	0.37
TOTAL	407	25.47	358	23.02	536	31.00
Q27 WHAT KIND OF INFORMATION WERE YOU TRYING TO GET?						
DESCRIPTIONS OF JOB ACTIVITIES	73	37.06	82	50.31	127	47.57
PREREQUISITES FOR A JOB	119	60.41	109	66.87	175	65.54
OUTLOOK FOR JOB OPENINGS IN THE 1980'S	62	31.47	66	40.49	105	39.33
WAGE OR SALARY INFO	86	43.65	104	63.80	141	52.81
SATISFACTIONS FROM A JOB	41	20.81	50	30.67	85	31.84
LIST OF OCCUPATIONS YOU MIGHT LIKE	64	32.49	71	43.56	91	34.08
OTHER INFO	23	11.68	16	9.82	30	11.24
NOT LOOKING FOR ANY SPECIAL INFO	24	12.18	11	6.75	27	10.11
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	2	1.02	2	1.23	2	0.75
TOTAL	197	12.33	163	10.48	267	15.44
Q28 DID YOU GET THE INFO YOU WANTED?						
ALL OF IT	24	13.87	21	13.82	36	14.94
MOST OF IT	79	45.66	86	56.58	125	51.87
SOME OF IT	59	34.10	42	27.63	75	31.12
NONE OF IT	4	2.31	2	1.32	3	1.24
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	1	0.58	0	0.0	2	0.83
NO RESPONSE	6	3.47	1	0.66	0	0.0
TOTAL	173	10.83	152	9.77	241	13.94
Q29 Was It Hard to Understand the Information?						
YES	6	3.70	6	4.03	8	3.39
SOMETIMES	36	22.22	29	19.46	55	23.31
NO	112	69.14	106	71.14	162	68.64
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	8	4.94	8	5.37	11	4.66
TOTAL	162	10.14	149	9.58	236	13.65

(CONTINUED)

	STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS	1598		1555		1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q30 CAN YOU GET INFO FROM SORTING CARDS?						
YES	323	20.21	360	23.15	394	22.79
NO	289	18.09	402	25.85	278	16.08
NOT SURE	903	56.51	752	48.36	997	57.66
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	1	0.06	0	0.0	2	0.12
NO RESPONSE	82	5.13	41	2.64	58	3.35
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q31 HOW DID YOU LEARN ABOUT OCCUPATIONAL SELECTION BY CARD SORTING?						
GUIDANCE STAFF	110	34.06	174	48.33	157	39.85
CAREER EDUCATION SPECIALIST	66	20.43	51	14.17	88	22.34
TEACHER IN CLASS	102	31.58	141	39.17	92	23.35
TEACHER OUTSIDE OF CLASS	15	4.64	15	4.17	18	4.57
SCHOOL LIBRARIAN	87	26.93	81	22.50	81	20.56
POSTER OR BULLETIN BOARD	10	3.10	19	5.28	11	2.79
SCHOOL NEWSPAPER	5	1.55	7	1.94	4	1.02
FRIEND AT SCHOOL	45	13.93	69	19.17	54	13.71
GROUP VISIT OR ORIENTATION	21	6.50	12	3.33	46	11.68
OTHER	13	4.02	9	2.50	23	5.84
I DON'T REMEMBER	15	4.64	8	2.22	23	5.84
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	6	1.86	0	0.0	1	0.25
TOTAL	323	20.21	360	23.15	394	22.79
Q32 HOW OFTEN HAVE YOU USED SORTING CARDS TO GET OCCUPATIONAL INFORMATION?						
NEVER	102	31.58	139	38.61	173	43.91
ONCE	83	25.70	94	26.11	112	28.43
A FEW TIMES	112	34.67	111	30.83	91	23.10
MANY TIMES	22	6.81	16	4.44	17	4.31
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	1	0.31	0	0.0	0	0.0
NO RESPONSE	3	0.93	0	0.0	1	0.25
TOTAL	323	20.21	360	23.15	394	22.79
Q33 WHAT KIND OF INFORMATION WERE YOU TRYING TO GET?						
DESCRIPTIONS OF JOB ACTIVITIES	108	49.77	98	44.34	100	45.45
PREREQUISITES FOR A JOB	141	64.98	138	62.44	144	65.45
OUTLOOK FOR JOB OPENINGS	73	33.64	95	42.99	70	31.82
WAGE AND SALARY INFO	108	49.77	120	54.30	104	47.27
SATISFACTIONS FROM A JOB	56	25.81	73	33.03	58	26.36

(CONTINUED)

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
(ITEM CONTINUED)						
Q33 WHAT KIND OF INFORMATION WERE YOU TRYING TO GET?						
LIST OF OCCUPATIONS YOU MIGHT LIKE	86	39.63	101	45.70	89	40.45
LEARN OTHER INFO	18	8.29	22	9.95	20	9.09
NOT LOOKING FOR ANY SPECIAL INFO	3	1.38	8	3.62	6	2.73
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	3	1.38	4	1.81	1	0.45
TOTAL	217	13.58	221	14.21	220	12.72
Q34 DID YOU FIND THE INFO YOU WANTED?						
ALL OF IT	27	12.80	24	11.48	25	11.74
MOST OF IT	100	47.39	102	48.80	102	47.89
SOME OF IT	78	36.97	81	38.76	74	34.74
NONE OF IT	2	0.95	0	0.0	10	4.69
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	4	1.90	2	0.96	2	0.94
TOTAL	211	13.20	209	13.44	213	12.32
Q35 Was It Hard to Understand the Information?						
YES	11	5.37	4	1.93	9	4.48
SOMETIMES	54	26.34	62	29.95	58	28.86
NO	131	63.90	135	65.22	121	60.20
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	9	4.39	6	2.90	13	6.47
TOTAL	205	12.83	207	13.31	201	11.63
Q36 SINCE 10TH GRADE HAVE YOU SEEN A FILM OR VIDEO TAPE ABOUT OCCUPATION?						
YES	1056	66.08	1063	68.36	1060	61.31
NO	506	31.66	473	30.42	640	37.02
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	0	0.0	0	0.0	1	0.06
NO RESPONSE	36	2.25	19	1.22	27	1.56
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

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                                                            STRATUM1           STRATUM2           STRATUM3
NUMBER OF OBSERVATIONS                                        1598               1555               1729

      ITEMS  AND
     ALTERNATIVES                                        FREQ  PERCENT      FREQ  PERCENT      FREQ  PERCENT

 Q36  SINCE 10TH GRADE HAVE YOU TAKEN PART IN A SIMULATION?
          YES                                             424   26.53       353   22.70       380   21.98
          NO                                             1126   70.46      1172   75.37      1315   76.06
          NOT APPLICABLE                                    0    0.0          0    0.0          1    0.06
          DON'T KNOW                                        1    0.06         0    0.0          0    0.0
          NO RESPONSE                                      47    2.94        30    1.93        33    1.91
         TOTAL                                           1598  100.00      1555  100.00      1729  100.00

 Q36  SINCE 10TH GRADE HAVE YOU HAD A SPECIAL COURSE ON OCCUPATIONS?
          YES                                             804   50.31       743   47.78       707   40.89
          NO                                              754   47.18       787   50.61       989   57.20
          NOT APPLICABLE                                    0    0.0          0    0.0          1    0.06
          DON'T KNOW                                        0    0.0          0    0.0          0    0.0
          NO RESPONSE                                      40    2.50        25    1.61        32    1.85
         TOTAL                                           1598  100.00      1555  100.00      1729  100.00

 Q36  SINCE 10TH GRADE HAVE YOU GONE TO A CAREER DAY?
          YES                                             700   43.80       589   37.88       615   35.57
          NO                                              862   53.94       938   60.32      1080   62.46
          NOT APPLICABLE                                    0    0.0          0    0.0          1    0.06
          DON'T KNOW                                        0    0.0          0    0.0          0    0.0
          NO RESPONSE                                      36    2.25        28    1.80        33    1.91
         TOTAL                                           1598  100.00      1555  100.00      1729  100.00

 Q36  SINCE 10TH GRADE HAVE YOU BEEN IN A WORKSTUDY PROGRAM ARRANGED BY SCHOOL?
          YES                                             260   16.27       215   13.83       213   12.32
          NO                                             1289   80.66      1304   83.86      1470   85.02
          NOT APPLICABLE                                    0    0.0          0    0.0          1    0.06
          DON'T KNOW                                        0    0.0          0    0.0          0    0.0
          NO RESPONSE                                      49    3.07        36    2.32        45    2.60
         TOTAL                                           1598  100.00      1555  100.00      1729  100.00

 Q36  SINCE 10TH GRADE HAVE YOU HAD A TOUR OF A BUSINESS?
          YES                                             621   38.86       660   42.44       578   33.43
          NO                                              936   58.57       874   56.21      1117   64.60
          NOT APPLICABLE                                    0    0.0          0    0.0          1    0.06
          DON'T KNOW                                        0    0.0          1    0.06         0    0.0
          NO RESPONSE                                      41    2.57        20    1.29        33    1.91
         TOTAL                                           1598  100.00      1555  100.00      1729  100.00

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	STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS	1598		1555		1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q36 SINCE 10TH GRADE HAVE YOU TAKEN PART IN "JOB SHADOWING"?						
YES	420	26.28	420	27.01	393	22.73
NO	1124	70.34	1102	70.87	1295	74.90
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	0	0.0	0	0.0	1	0.06
NO RESPONSE	54	3.38	33	2.12	39	2.26
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q36 SINCE 10TH GRADE HAVE YOU MET W/FORMER STUDENTS TO DISCUSS OCCUPATIONS?						
YES	581	36.36	454	29.20	419	24.23
NO	971	60.76	1073	69.00	1269	73.40
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	46	2.88	28	1.80	40	2.31
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q36 SINCE 10TH GRADE HAVE YOU MET W/OTHER EMPLOYED PEOPLE?						
YES	778	48.69	733	47.14	686	39.68
NO	781	48.87	798	51.32	1013	58.59
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	0	0.0	1	0.06	0	0.0
NO RESPONSE	39	2.44	23	1.48	29	1.68
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q37 HOW DID YOU LEARN ABOUT ACTIVITIES LISTED IN QUESTION 36?						
GUIDANCE STAFF	644	40.30	641	41.22	636	36.78
CAREER EDUCATION SPECIALIST	278	17.40	174	11.19	228	13.19
TEACHER IN CLASS	744	46.56	741	47.65	786	45.46
TEACHER OUTSIDE OF CLASS	167	10.45	154	9.90	159	9.20
SCHOOL LIBRARIAN	113	7.07	159	10.23	122	7.06
POSTER OR BULLETIN BOARD	237	14.83	206	13.25	269	15.56
SCHOOL NEWSPAPER	86	5.38	46	2.96	79	4.57
FRIEND AT SCHOOL	349	21.84	344	22.12	364	21.05
GROUP VISIT OR ORIENTATION	242	15.14	204	13.12	225	13.01
OTHER	77	4.82	66	4.24	108	6.25
I DON'T REMEMBER HOW I FOUND OUT	73	4.57	76	4.89	133	7.69
I DON'T THINK THIS IS AVAILABLE AT MY SCHOOL	155	9.70	158	10.16	178	10.29
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	43	2.69	35	2.25	39	2.26
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q38 WHAT WERE YOU TRYING TO LEARN FROM THE ACTIVITIES LISTED IN QUESTION 36?						
DESCRIPTIONS OF JOB ACTIVITIES	726	51.78	759	55.69	803	52.90
PREREQUISITES FOR A JOB	942	67.19	937	68.75	953	62.78
OUTLOOK FOR JOB OPENINGS IN THE 1980'S	500	35.66	526	38.59	542	35.70
WAGE AND SALARY INFORMATION	677	48.29	719	52.75	669	44.07
SATISFACTIONS FROM A JOB	499	35.59	478	35.07	498	32.81
LIST OF OCCUPATIONS YOU MIGHT LIKE	560	39.94	573	42.04	567	37.35
OTHER INFO	155	11.06	131	9.61	130	8.56
NOT LOOKING FOR ANY SPECIAL INFO	68	4.85	90	6.60	109	7.18
HAVE NOT TAKEN PART IN THESE ACTIVITIES	84	5.99	70	5.14	115	7.58
NOT APPLCIABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	32	2.28	23	1.69	24	1.58
TOTAL	1402	87.73	1363	87.65	1518	87.80
Q39 HOW OFTEN HAVE YOU LOOKED FOR OCCUP INFO BECAUSE OF A CLASS ASSIGNMENT?						
NEVER	475	29.72	454	29.20	635	36.73
ONCE	287	17.96	324	20.84	376	21.75
A FEW TIMES	571	35.73	575	36.98	535	30.94
MANY TIMES	221	13.83	169	10.87	138	7.98
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	0	0.0	0	0.0	1	0.06
NO RESPONSE	44	2.75	33	2.12	43	2.49
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q39 HOW OFTEN HAVE YOU LOOKED FOR OCCUP INFO BECAUSE OF TALK W/COUNSELOR?						
NEVER	572	35.79	537	34.53	635	36.73
ONCE	289	18.09	292	18.78	357	20.65
A FEW TIMES	500	31.29	539	34.66	544	31.46
MANY TIMES	185	11.58	151	9.71	149	8.62
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	0	0.0	0	0.0	2	0.12
NO RESPONSE	52	3.25	36	2.32	41	2.37
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q39 HOW OFTEN HAVE YOU LOOKED FOR OCCUP INFO BECAUSE OF TALK BY SOMEONE?						
NEVER	521	32.60	640	41.16	757	43.78
ONCE	347	21.71	328	21.09	359	20.76
A FEW TIMES	553	34.61	462	29.71	491	28.40
MANY TIMES	122	7.63	80	5.14	74	4.28
NOT APPLCIABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	1	0.06	0	0.0	0	0.0
NO RESPONSE	54	3.38	45	2.89	47	2.72
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q39 HOW OFTEN HAVE YOU LOOKED FOR OCCUP INFO BECAUSE OF FILM AT SCHOOL?						
NEVER	567	35.48	596	38.33	855	49.45
ONCE	316	19.77	316	20.32	304	17.58
A FEW TIMES	486	30.41	472	30.35	422	24.41
MANY TIMES	173	10.83	127	8.17	95	5.49
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	0	0.0	1	0.06	2	0.12
NO RESPONSE	56	3.50	43	2.77	50	2.89
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q39 HOW OFTEN HAVE YOU LOOKED FOR OCCUP INFO BECAUSE OF BULLETIN BOARD?						
NEVER	822	51.44	874	56.21	1010	58.42
ONCE	259	16.21	209	13.44	271	15.67
A FEW TIMES	335	20.96	324	20.84	317	18.33
MANY TIMES	123	7.70	86	5.53	72	4.16
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	0	0.0	1	0.06	1	0.06
NO RESPONSE	59	3.69	61	3.92	57	3.30
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q39 HOW OFTEN HAVE YOU LOOKED FOR OCCUP INFO BECAUSE OF TALK W/PARENTS?						
NEVER	274	17.15	278	17.88	345	19.95
ONCE	141	8.82	165	10.61	163	9.43
A FEW TIMES	584	36.55	608	39.10	668	38.64
MANY TIMES	552	34.54	465	29.90	509	29.44
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	2	0.13	1	0.06	2	0.12
NO RESPONSE	45	2.82	38	2.44	41	2.37
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

	STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS	1598		1555		1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q39 HOW OFTEN HAVE YOU LOOKED FOR OCCUP INFO BECAUSE OF EXPERIENCE ON A JOB?						
NEVER	719	44.99	734	47.20	869	50.26
ONCE	249	15.58	209	13.44	207	11.97
A FEW TIMES	399	24.97	395	25.40	398	23.02
MANY TIMES	174	10.89	158	10.16	200	11.57
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	4	0.25	0	0.0	2	0.12
NO RESPONSE	53	3.32	59	3.79	52	3.01
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q39 HOW OFTEN HAVE YOU LOOKED FOR OCCUP INFO BECAUSE OF TV OR MOVIE?						
NEVER	743	46.50	752	48.36	952	55.06
ONCE	173	10.83	188	12.09	182	10.53
A FEW TIMES	463	28.97	431	27.72	422	24.41
MANY TIMES	159	9.95	130	8.36	111	6.42
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	1	0.06	0	0.0	0	0.0
NO RESPONSE	59	3.69	54	3.47	61	3.53
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q39 HOW OFTEN HAVE YOU LOOKED FOR OCCUP INFO BECAUSE OF TALK W/FRIEND?						
NEVER	353	22.09	383	24.63	453	26.20
ONCE	213	13.33	228	14.66	226	13.07
A FEW TIMES	633	39.61	611	39.29	696	40.25
MANY TIMES	358	22.40	284	18.26	313	18.10
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	0	0.0	0	0.0	2	0.12
NO RESPONSE	41	2.57	49	3.15	38	2.20
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q40 HOW OFTEN HAVE YOU TALKED W/COUNSELOR ABOUT HIGH SCHOOL COURSES?						
NEVER	264	16.52	275	17.68	266	15.38
ONCE	270	16.90	285	18.33	276	15.96
A FEW TIMES	650	40.68	665	42.77	782	45.23
MANY TIMES	387	24.22	304	19.55	383	22.15
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	27	1.69	26	1.67	21	1.21
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

	STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS	1598		1555		1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q40 HOW OFTEN HAVE YOU TALKED W/COUNSELOR ABOUT OCCUPATIONS?						
NEVER	751	47.00	709	45.59	809	46.79
ONCE	286	17.90	266	17.11	304	17.58
A FEW TIMES	402	25.16	460	29.58	478	27.65
MANY TIMES	124	7.76	93	5.98	109	6.30
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	2	0.13	0	0.0	0	0.0
NO RESPONSE	33	2.07	27	1.74	28	1.62
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q40 HOW OFTEN HAVE YOU TALKED W/COUNSELOR ABOUT PREPARING FOR OCCUPATION?						
NEVER	597	37.36	586	37.68	681	39.39
ONCE	267	16.71	281	18.07	292	16.89
A FEW TIMES	477	29.85	507	32.60	546	31.58
MANY TIMES	223	13.95	147	9.45	179	10.35
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	1	0.06	2	0.13	0	0.0
NO RESPONSE	33	2.07	32	2.06	30	1.74
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q40 HOW OFTEN HAVE YOU TALKED W/COUNSELOR ABOUT WHERE TO GET A JOB?						
NEVER	818	51.19	917	58.97	1081	62.52
ONCE	244	15.27	229	14.73	228	13.19
A FEW TIMES	350	21.90	306	19.68	292	16.89
MANY TIMES	141	8.82	75	4.82	92	5.32
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	2	0.13	1	0.06	2	0.12
NO RESPONSE	43	2.69	27	1.74	33	1.91
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q40 HOW OFTEN HAVE YOU TALKED W/COUNSELOR ABOUT ATTENDANCE OR DISCIPLINE?						
NEVER	1167	73.03	1269	81.61	1290	74.61
ONCE	175	10.95	104	6.69	169	9.77
A FEW TIMES	172	10.76	115	7.40	182	10.53
MANY TIMES	46	2.88	33	2.12	56	3.24
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	1	0.06	0	0.0	0	0.0
NO RESPONSE	37	2.32	34	2.19	31	1.79
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q40 HOW OFTEN HAVE YOU TALKED W/COUNSELOR ABOUT PERSONAL PROBLEMS?						
NEVER	1221	76.41	1255	80.71	1342	77.62
ONCE	159	9.95	131	8.42	147	8.50
A FEW TIMES	135	8.45	107	6.88	159	9.20
MANY TIMES	44	2.75	28	1.80	46	2.66
NOT APPLICABLE	0	0.0	0	0.0	1	0.06
DON'T KNOW	0	0.0	1	0.06	0	0.0
NO RESPONSE	39	2.44	33	2.12	34	1.97
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q41 HOW OFTEN HAVE YOU TALKED ABOUT OCCUP W/YOUR FRIENDS?						
NEVER	77	4.82	64	4.12	68	3.93
ONCE	92	5.76	68	4.37	83	4.80
A FEW TIMES	613	38.36	678	43.60	706	40.83
MANY TIMES	787	49.25	720	46.30	846	48.93
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	1	0.06	0	0.0	0	0.0
NO RESPONSE	28	1.75	25	1.61	26	1.50
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q41 HOW OFTEN HAVE YOU TALKED ABOUT OCCUP W/YOUR PARENTS OR RELATIVES?						
NEVER	68	4.26	55	3.54	46	2.66
ONCE	61	3.82	52	3.34	64	3.70
A FEW TIMES	533	33.35	588	37.81	580	33.55
MANY TIMES	902	56.45	826	53.12	1008	58.30
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	8	0.50	6	0.39	8	0.46
NO RESPONSE	26	1.63	28	1.80	23	1.33
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q41 HOW OFTEN HAVE YOU TALKED ABOUT OCCUP W/COUNSELORS?						
NEVER	467	29.22	444	28.55	501	28.98
ONCE	296	18.52	288	18.52	325	18.80
A FEW TIMES	585	36.61	643	41.35	686	39.68
MANY TIMES	199	12.45	141	9.07	180	10.41
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	1	0.06	0	0.0	1	0.06
NO RESPONSE	50	3.13	39	2.51	36	2.08
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q41 HOW OFTEN HAVE YOU TALKED ABOUT OCCUP W/TEACHERS?						
NEVER	407	25.47	483	31.06	570	32.97
ONCE	290	18.15	283	18.20	323	18.68
A FEW TIMES	718	44.93	662	42.57	684	39.56
MANY TIMES	148	9.26	91	5.85	121	7.00
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	7	0.44	6	0.39	7	0.40
NO RESPONSE	28	1.75	30	1.93	24	1.39
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q41 HOW OFTEN HAVE YOU TALKED ABOUT OCCUP W/EMPLOYEES IN AN OCCUP OF INTEREST?						
NEVER	421	26.35	415	26.69	459	26.55
ONCE	244	15.27	269	17.30	292	16.89
A FEW TIMES	655	40.99	631	40.58	684	39.56
MANY TIMES	239	14.96	203	13.05	259	14.98
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	2	0.13	2	0.13	5	0.29
NO RESPONSE	37	2.32	35	2.25	30	1.74
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q41 HOW OFTEN HAVE YOU TALKED ABOUT OCCUP W/FORMER STUDENTS?						
NEVER	923	57.76	905	58.20	1115	64.49
ONCE	251	15.71	215	13.83	215	12.43
A FEW TIMES	309	19.34	357	22.96	304	17.58
MANY TIMES	72	4.51	39	2.51	53	3.07
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	1	0.06	0	0.0	3	0.17
NO RESPONSE	42	2.63	39	2.51	39	2.26
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q41 HOW OFTEN HAVE YOU TALKED ABOUT OCCUP W/STATE EMPLOYMENT COUNSELORS?						
NEVER	1338	83.73	1390	89.39	1591	92.02
ONCE	101	6.32	69	4.44	53	3.07
A FEW TIMES	103	6.45	52	3.34	39	2.26
MANY TIMES	16	1.00	10	0.64	11	0.64
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	2	0.12
NO RESPONSE	40	2.50	34	2.19	33	1.91
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

	STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS	1598		1555		1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q41 HOW OFTEN HAVE YOU TALKED ABOUT OCCUP W/EMPLOYERS?						
NEVER	783	49.00	830	53.38	949	54.89
ONCE	228	14.27	212	13.63	230	13.30
A FEW TIMES	452	28.29	415	26.69	419	24.23
MANY TIMES	93	5.82	64	4.12	96	5.55
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	2	0.13	0	0.0	3	0.17
NO RESPONSE	40	2.50	34	2.19	32	1.85
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q41 HOW OFTEN HAVE YOU TALKED ABOUT OCCUP W/COLLEGE ADMISSIONS OFFICERS?						
NEVER	1185	74.16	1235	79.42	1377	79.64
ONCE	143	8.95	128	8.23	105	6.07
A FEW TIMES	180	11.26	140	9.00	173	10.01
MANY TIMES	54	3.38	16	1.03	37	2.14
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	36	2.25	36	2.32	37	2.14
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q41 HOW OFTEN HAVE YOU TALKED ABOUT OCCUP W/ARMED FORCES RECRUITERS?						
NEVER	1163	72.78	1124	72.28	1392	80.51
ONCE	163	10.20	167	10.74	151	8.73
A FEW TIMES	167	10.45	171	11.00	107	6.19
MANY TIMES	62	3.88	56	3.60	41	2.37
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	43	2.69	37	2.38	38	2.20
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q42 HOW OFTEN HAVE YOU GONE TO A PUBLIC LIBRARY?						
NEVER	555	34.73	676	43.47	724	41.87
ONCE	175	10.95	204	13.12	209	12.09
A FEW TIMES	501	31.35	429	27.59	460	26.60
MANY TIMES	327	20.46	217	13.95	300	17.35
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	1	0.06	3	0.17
NO RESPONSE	40	2.50	28	1.80	33	1.91
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

	STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS	1598		1555		1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q42 HOW OFTEN HAVE YOU GONE TO STATE EMPLOYMENT OFFICE?						
NEVER	1233	77.16	1312	84.37	1510	87.33
ONCE	166	10.39	126	8.10	105	6.07
A FEW TIMES	128	8.01	78	5.02	64	3.70
MANY TIMES	24	1.50	9	0.58	12	0.69
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	1	0.06	0	0.0
NO RESPONSE	47	2.94	29	1.86	38	2.20
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q42 HOW OFTEN HAVE YOU GONE TO REGIONAL CAREER CENTER?						
NEVER	1256	78.60	1373	88.30	1454	84.09
ONCE	135	8.45	82	5.27	99	5.73
A FEW TIMES	117	7.32	50	3.22	104	6.02
MANY TIMES	38	2.38	18	1.16	26	1.50
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	5	0.31	0	0.0	2	0.12
NO RESPONSE	47	2.94	32	2.06	44	2.54
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q42 HOW OFTEN HAVE YOU GONE TO A LOCAL COLLEGE?						
NEVER	1045	65.39	1086	69.84	1257	72.70
ONCE	207	12.95	197	12.67	185	10.70
A FEW TIMES	232	14.52	206	13.25	205	11.86
MANY TIMES	66	4.13	34	2.19	42	2.43
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	1	0.06
NO RESPONSE	48	3.00	32	2.06	39	2.26
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q42 HOW OFTEN HAVE YOU GONE TO A PRIVATE EMPLOYMENT AGENCY?						
NEVER	1343	84.04	1396	89.77	1541	89.13
ONCE	102	6.38	58	3.73	66	3.82
A FEW TIMES	80	5.01	51	3.28	68	3.93
MANY TIMES	18	1.13	12	0.77	8	0.46
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	3	0.19	4	0.26	2	0.12
NO RESPONSE	52	3.25	34	2.19	44	2.54
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q42 HOW OFTEN HAVE YOU GONE TO AN ARMED FORCES RECRUITER?						
NEVER	1319	82.54	1272	81.80	1485	85.89
ONCE	107	6.70	127	8.17	108	6.25
A FEW TIMES	87	5.44	88	5.66	63	3.64
MANY TIMES	36	2.25	32	2.06	30	1.74
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	49	3.07	36	2.32	43	2.49
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q42 HOW OFTEN HAVE YOU GONE TO AN EMPLOYER?						
NEVER	776	48.56	825	53.05	963	55.70
ONCE	265	16.58	263	16.91	218	12.61
A FEW TIMES	385	24.09	355	22.83	392	22.67
MANY TIMES	126	7.88	78	5.02	117	6.77
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	1	0.06	0	0.0	1	0.06
NO RESPONSE	45	2.82	34	2.19	38	2.20
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q43 CAN YOU GET ALL YOUR OCCUP INFO FROM RESOURCES AT SCHOOL?						
YES	508	31.79	478	30.74	590	34.12
NO	571	35.73	586	37.68	624	36.09
NOT SURE	464	29.04	452	29.07	466	26.95
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	2	0.13	3	0.19	3	0.17
NO RESPONSE	53	3.32	36	2.32	46	2.66
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q44 HOW SURE ARE YOU ABOUT THE OCCUP YOU WANT TO ENTER?						
EXACTLY	591	36.98	489	31.45	618	35.74
TRYING TO DECIDE BETWEEN 2	486	30.41	478	30.74	523	30.25
THINKING ABOUT 3 OR MORE	342	21.40	418	26.88	425	24.58
NO OCCUP IN MIND	140	8.76	142	9.13	131	7.58
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	2	0.13	2	0.13	4	0.23
NO RESPONSE	37	2.32	26	1.67	28	1.62
TOTAL	1598	100.00	1555	100.00	1729	100.00

(CONTINUED)

	STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS	1598		1555		1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q45 HOW WELL DO YOU KNOW WHAT YOU WANT FROM AN OCCUP?						
EXACTLY	439	27.47	345	22.19	454	26.26
GENERAL IDEA	934	58.45	973	62.57	1052	60.84
NOT SURE	154	9.64	175	11.25	165	9.54
NO IDEA	33	2.07	35	2.25	25	1.45
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	1	0.06	2	0.13	5	0.29
NO RESPONSE	37	2.32	25	1.61	28	1.62
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q47 HOW MUCH DO YOU KNOW ABOUT THIS OCCUPATION?						
A GREAT DEAL	523	32.73	490	31.51	573	33.14
SOME	777	48.62	837	53.83	912	52.75
VERY LITTLE	187	11.70	135	8.68	130	7.52
NOTHING	45	2.82	60	3.86	60	3.47
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	8	0.50	5	0.32	7	0.40
NO RESPONSE	58	3.63	28	1.80	47	2.72
TOTAL	1598	100.00	1555	100.00	1729	100.00
Q48 WHERE DID YOU GET YOUR OCCUPATIONAL INFORMATION FROM IN QUESTION 46?						
1 TEACHERS	773	51.98	694	47.47	744	46.07
2 COUNSELORS	584	39.27	608	41.59	646	40.00
3 PRINCIPAL OR ASSISTANT PRINCIPAL	37	2.49	42	2.87	30	1.86
4 LIBRARIAN	172	11.57	182	12.45	146	9.04
5 FRIENDS	786	52.86	779	53.28	872	53.99
6 SOMEONE ELSE AT SCHOOL	200	13.45	179	12.24	185	11.46
7 PARENTS OR RELATIVES	981	65.97	998	68.26	1118	69.23
8 FRIENDS OUTSIDE SCHOOL	555	37.32	567	38.78	627	38.82
9 SOMEONE IN THIS FIELD	749	50.37	806	55.13	899	55.67
10 EMPLOYMENT SERVICE REP	83	5.58	41	2.80	53	3.28
11 SOMEONE ELSE OUTSIDE SCHOOL	310	20.85	285	19.49	328	20.31
12 BOOKS, MAGAZINES, PAMPHLETS, REPORTS	969	65.16	1027	70.25	1008	62.41
13 FILMS, TAPES, CASSETTES	301	20.24	297	20.31	280	17.34
14 MICROFICHE	78	5.25	78	5.34	109	6.75
15 COMPUTER	127	8.54	90	6.16	185	11.46
16 OTHER MATERIALS AT SCHOOL	238	16.01	260	17.78	258	15.98
17 PUBLIC LIBRARY	618	41.56	496	33.93	563	34.86
18 DISTRICT OR REGIONAL CAREER CENTER	119	8.00	64	4.38	89	5.51
19 STATE EMPLOYMENT OFFICE	78	5.25	67	4.58	46	2.85
20 OTHER PLACE OUTSIDE OF SCHOOL	497	33.42	491	33.58	472	29.23
21 CAREER DAYS OR ASSEMBLY PROGRAMS	499	33.56	427	29.21	437	27.06

(CONTINUED)

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
(ITEM CONTINUED)						
Q48 WHERE DID YOU GET YOUR OCCUPATIONAL INFORMATION FROM IN QUESTION 46?						
22 CAREER CLUBS	136	9.15	84	5.75	66	4.09
23 CLASSES IN CAREER PLANNING	336	22.60	282	19.29	267	16.53
24 JOB SHADOWING (OBSERVING A WORKER)	182	12.24	177	12.11	146	9.04
25 VISITS TO JOB SITES	355	23.87	341	23.32	300	18.58
26 WORK STUDY OR INTERNSHIP PROGRAMS	114	7.67	95	6.50	101	6.25
27 VOLUNTEER WORK ARRANGED BY SCHOOL	109	7.33	95	6.50	85	5.26
28 MEETING WITH FORMER STUDENTS	150	10.09	129	8.82	122	7.55
29 MEETING WITH OTHER WORKERS OR EMPLOYERS	273	18.36	264	18.06	240	14.86
30 OTHER ACTIVITIES ARRANGED BY SCHOOL	185	12.44	167	11.42	167	10.34
31 WORK	451	30.33	495	33.86	502	31.08
32 WATCHING PEOPLE AT WORK	452	30.40	486	33.24	535	33.13
33 WATCHING TV	532	35.78	538	36.80	514	31.83
34 MOVIES	280	18.83	288	19.70	308	19.07
35 CLUBS	164	11.03	225	15.39	145	8.98
36 GENERAL READING	573	38.53	538	36.80	632	39.13
37 OTHER ACTIVITIES OUTSIDE SCHOOL	393	26.43	376	25.72	439	27.18
PEOPLE AT SCHOOL (Q. 1 - 6)	0	0.0	0	0.0	0	0.0
PEOPLE OUTSIDE OF SCHOOL (Q. 7 - 11)	0	0.0	0	0.0	0	0.0
MATERIALS AT SCHOOL (Q. 12 - 16)	0	0.0	0	0.0	0	0.0
PLACES TO GET INFORMATION OUTSIDE OF SCHOOL (Q. 17 - 2	0	0.0	0	0.0	0	0.0
ACTIVITIES ARRANGED BY SCHOOL (Q. 21 - 30)	0	0.0	0	0.0	0	0.0
ACTIVITIES OUTSIDE OF SCHOOL (Q. 31 - 37)	0	0.0	0	0.0	0	0.0
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	12	0.81	2	0.14	8	0.50
TOTAL	1487	93.05	1462	94.02	1615	93.41
Q49 HOW MUCH DO YOU KNOW ABOUT THE PREREQUISITES FOR THE JOB IN QUESTION 46?						
A GREAT DEAL	506	34.03	470	32.15	588	36.41
SOME	745	50.10	789	53.97	845	52.32
VERY LITTLE	157	10.56	150	10.26	128	7.93
NOTHING	50	3.36	45	3.08	34	2.11
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	2	0.12
NO RESPONSE	29	1.95	8	0.55	18	1.11
TOTAL	1487	93.05	1462	94.02	1615	93.41

(CONTINUED)

		STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS		1598		1555		1729	
ITEMS AND ALTERNATIVES		FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q50 SOURCES OF PREREQUISITES INFO:							
1 TEACHERS		166	11.79	144	10.22	158	10.12
2 COUNSELORS		99	7.03	143	10.15	118	7.56
3 PRINCIPAL OR ASSISTANT PRINCIPAL		4	0.28	1	0.07	1	0.06
4 LIBRARIAN		4	0.28	4	0.28	5	0.32
5 FRIENDS		39	2.77	53	3.76	52	3.33
6 SOMEONE ELSE AT SCHOOL		4	0.28	5	0.35	6	0.38
7 PARENTS OR RELATIVES		213	15.13	215	15.26	272	17.42
8 FRIENDS OUTSIDE SCHOOL		30	2.13	16	1.14	34	2.18
9 SOMEONE IN THIS FIELD		156	11.08	158	11.21	198	12.68
10 EMPLOYMENT SERVICE REP		8	0.57	3	0.21	1	0.06
11 SOMEONE ELSE OUTSIDE SCHOOL		31	2.20	32	2.27	36	2.31
12 BOOKS, MAGAZINES, PAMPHLETS, REPORTS		184	13.07	225	15.97	201	12.88
13 FILMS, TAPES, CASSETTES		6	0.43	11	0.78	11	0.70
14 MICROFICHE		12	0.85	9	0.64	12	0.77
15 COMPUTER		20	1.42	14	0.99	47	3.01
16 OTHER MATERIALS AT SCHOOL		9	0.64	3	0.21	5	0.32
17 PUBLIC LIBRARY		37	2.63	22	1.56	33	2.11
18 DISTRICT OR REGIONAL CAREER CENTER		1	0.07	1	0.07	5	0.32
19 STATE EMPLOYMENT OFFICE		1	0.07	0	0.0	0	0.0
20 OTHER PLACE OUTSIDE OF SCHOOL		26	1.85	20	1.42	22	1.41
21 CAREER DAYS OR ASSEMBLY PROGRAMS		33	2.34	37	2.63	29	1.86
22 CAREER CLUBS		4	0.28	2	0.14	1	0.06
23 CLASSES IN CAREER PLANNING		25	1.78	14	0.99	19	1.22
24 JOB SHADOWING (OBSERVING A WORKER)		7	0.50	8	0.57	10	0.64
25 VISITS TO JOB SITES		16	1.14	10	0.71	10	0.64
26 WORK STUDY OR INTERNSHIP PROGRAMS		11	0.78	9	0.64	3	0.19
27 VOLUNTEER WORK ARRANGED BY SCHOOL		4	0.28	5	0.35	5	0.32
28 MEETING WITH FORMER STUDENTS		1	0.07	2	0.14	4	0.26
29 MEETING WITH OTHER WORKERS OR EMPLOYERS		8	0.57	10	0.71	16	1.02
30 OTHER ACTIVITIES ARRANGED BY SCHOOL		8	0.57	6	0.43	6	0.38
31 WORK		34	2.41	64	4.54	57	3.65
32 WATCHING PEOPLE AT WORK		24	1.70	24	1.70	20	1.28
33 WATCHING TV		9	0.64	18	1.28	12	0.77
34 MOVIES		0	0.0	2	0.14	3	0.19
35 CLUBS		10	0.71	8	0.57	14	0.90
36 GENERAL READING		36	2.56	23	1.63	31	1.99
37 OTHER ACTIVITIES OUTSIDE SCHOOL		11	0.78	12	0.85	27	1.73
PEOPLE AT SCHOOL	(Q. 1 -	6	0.43	2	0.14	5	0.32
PEOPLE OUTSIDE OF SCHOOL	(Q. 7 -	6	0.43	5	0.35	7	0.45
MATERIALS AT SCHOOL	(Q. 12 -	5	0.36	3	0.21	6	0.38
PLACES TO GET INFORMATION OUTSIDE OF SCHOOL	(Q. 17 -	0	0.0	1	0.07	2	0.13

(CONTINUED)

NUMBER OF OBSERVATIONS		STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES		FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
(ITEM CONTINUED)							
Q50 SOURCES OF PREREQUISITES INFO:							
ACTIVITIES ARRANGED BY SCHOOL	(Q. 21 -	2	0.14	3	0.21	4	0.26
ACTIVITIES OUTSIDE OF SCHOOL	(Q. 31 -	4	0.28	3	0.21	6	0.38
NOT APPLICABLE		0	0.0	0	0.0	0	0.0
DON'T KNOW		1	0.07	1	0.07	4	0.26
NO RESPONSE		195	13.85	122	8.66	159	10.19
TOTAL		1408	88.11	1409	90.61	1561	90.28
Q51 HOW MUCH DO YOU KNOW ABOUT WAGES OR SALARIES FOR THE JOB IN QUESTION 46?							
A GREAT DEAL		303	20.38	283	19.36	330	20.43
SOME		641	43.11	690	47.20	761	47.12
VERY LITTLE		293	19.70	278	19.02	299	18.51
NOTHING		166	11.16	165	11.29	156	9.66
NO APPLICABLE		0	0.0	0	0.0	0	0.0
DON'T KNOW		0	0.0	1	0.07	2	0.12
NO RESPONSE		84	5.65	45	3.08	67	4.15
TOTAL		1487	93.05	1462	94.02	1615	93.41
Q52 SOURCES OF WAGE & SALARY INFO							
1 TEACHERS		109	8.81	90	7.19	100	7.19
2 COUNSELORS		44	3.56	70	5.60	55	3.96
3 PRINCIPAL OR ASSISTANT PRINCIPAL		6	0.49	4	0.32	1	0.07
4 LIBRARIAN		4	0.32	5	0.40	5	0.36
5 FRIENDS		29	2.34	45	3.60	36	2.59
6 SOMEONE ELSE AT SCHOOL		7	0.57	4	0.32	3	0.22
7 PARENTS OR RELATIVES		165	13.34	191	15.27	253	18.20
8 FRIENDS OUTSIDE SCHOOL		19	1.54	14	1.12	38	2.73
9 SOMEONE IN THIS FIELD		152	12.29	174	13.91	198	14.24
10 EMPLOYMENT SERVICE REP		9	0.73	4	0.32	2	0.14
11 SOMEONE ELSE OUTSIDE SCHOOL		39	3.15	26	2.08	30	2.16
12 BOOKS, MAGAZINES, PAMPHLETS, REPORTS		190	15.36	234	18.71	192	13.81
13 FILMS, TAPES, CASSETTES		9	0.73	11	0.88	4	0.29
14 MICROFICHE		14	1.13	13	1.04	14	1.01
15 COMPUTER		30	2.43	17	1.36	57	4.10
16 OTHER MATERIALS AT SCHOOL		6	0.49	9	0.72	7	0.50
17 PUBLIC LIBRARY		31	2.51	20	1.60	25	1.80
18 DISTRICT OR REGIONAL CAREER CENTER		3	0.24	4	0.32	6	0.43
19 STATE EMPLOYMENT OFFICE		5	0.40	3	0.24	2	0.14
20 OTHER PLACE OUTSIDE OF SCHOOL		12	0.97	22	1.76	17	1.22
21 CAREER DAYS OR ASSEMBLY PROGRAMS		26	2.10	30	2.40	26	1.87

(CONTINUED)

NUMBER OF OBSERVATIONS		STRATUM1 1598		STRATUM2 1555		STRATUM3 1729
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
(ITEM CONTINUED)						
Q52 SOURCES OF WAGE & SALARY INFO						
22 CAREER CLUBS	2	0.16	1	0.08	2	0.14
23 CLASSES IN CAREER PLANNING	23	1.86	12	0.96	11	0.79
24 JOB SHADOWING (OBSERVING A WORKER)	1	0.08	5	0.40	6	0.43
25 VISITS TO JOB SITES	11	0.89	5	0.40	7	0.50
26 WORK STUDY OR INTERNSHIP PROGRAMS	4	0.32	7	0.56	3	0.22
27 VOLUNTEER WORK ARRANGED BY SCHOOL	1	0.08	1	0.08	1	0.07
28 MEETING WITH FORMER STUDENTS	2	0.16	3	0.24	3	0.22
29 MEETING WITH OTHER WORKERS OR EMPLOYERS	22	1.78	26	2.08	20	1.44
30 OTHER ACTIVITIES ARRANGED BY SCHOOL	6	0.49	4	0.32	6	0.43
31 WORK	41	3.31	53	4.24	53	3.81
32 WATCHING PEOPLE AT WORK	9	0.73	7	0.56	9	0.65
33 WATCHING TV	9	0.73	9	0.72	9	0.65
34 MOVIES	3	0.24	1	0.08	1	0.07
35 CLUBS	3	0.24	4	0.32	3	0.22
36 GENERAL READING	30	2.43	31	2.48	48	3.45
37 OTHER ACTIVITIES OUTSIDE SCHOOL	6	0.49	5	0.40	9	0.65
PEOPLE AT SCHOOL (Q. 1 -	2	0.16	1	0.08	3	0.22
PEOPLE OUTSIDE OF SCHOOL (Q. 7 -	4	0.32	7	0.56	11	0.79
MATERIALS AT SCHOOL (Q. 12 -	5	0.40	3	0.24	8	0.58
PLACES TO GET INFORMATION OUTSIDE OF SCHOOL (Q. 17 -	1	0.08	1	0.08	0	0.0
ACTIVITIES ARRANGED BY SCHOOL (Q. 21 -	0	0.0	3	0.24	2	0.14
ACTIVITIES OUTSIDE OF SCHOOL (Q. 31 -	2	0.16	0	0.0	5	0.36
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	3	0.24	3	0.24	2	0.14
NO RESPONSE	204	16.49	124	9.91	169	12.16
TOTAL	1237	77.41	1251	80.45	1390	80.39
Q53 HOW MUCH DO YOU KNOW ABOUT JOB SECURITY FOR THE JOB IN QUESTION 46?						
A GREAT DEAL	284	19.10	248	16.96	268	16.59
SOME	397	26.70	440	30.10	491	30.40
VERY LITTLE	328	22.06	336	22.98	393	24.33
NOTHING	398	26.77	393	26.88	398	24.64
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	1	0.07	0	0.0
NO RESPONSE	80	5.38	44	3.01	65	4.02
TOTAL	1487	93.05	1462	94.02	1615	93.41

(CONTINUED)

NUMBER OF OBSERVATIONS		STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES		FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q54 SOURCES OF JOB SECURITY INFORMATION							
1 TEACHERS		79	7.83	66	6.45	80	6.94
2 COUNSELORS		39	3.87	53	5.18	46	3.99
3 PRINCIPAL OR ASSISTANT PRINCIPAL		4	0.40	5	0.49	3	0.26
4 LIBRARIAN		1	0.10	3	0.29	1	0.09
5 FRIENDS		26	2.58	28	2.73	20	1.74
6 SOMEONE ELSE AT SCHOOL		2	0.20	3	0.29	2	0.17
7 PARENTS OR RELATIVES		133	13.18	171	16.70	211	18.32
8 FRIENDS OUTSIDE SCHOOL		16	1.59	20	1.95	20	1.74
9 SOMEONE IN THIS FIELD		111	11.00	149	14.55	168	14.58
10 EMPLOYMENT SERVICE REP		6	0.59	4	0.39	4	0.35
11 SOMEONE ELSE OUTSIDE SCHOOL		24	2.38	23	2.25	31	2.69
12 BOOKS, MAGAZINES, PAMPHLETS, REPORTS		130	12.88	140	13.67	139	12.07
13 FILMS, TAPES, CASSETTES		5	0.50	7	0.68	3	0.26
14 MICROFICHE		8	0.79	4	0.39	5	0.43
15 COMPUTER		9	0.89	10	0.98	33	2.86
16 OTHER MATERIALS AT SCHOOL		3	0.30	5	0.49	5	0.43
17 PUBLIC LIBRARY		23	2.28	18	1.76	11	0.95
18 DISTRICT OR REGIONAL CAREER CENTER		6	0.59	2	0.20	7	0.61
19 STATE EMPLOYMENT OFFICE		2	0.20	4	0.39	3	0.26
20 OTHER PLACE OUTSIDE OF SCHOOL		14	1.39	17	1.66	12	1.04
21 CAREER DAYS OR ASSEMBLY PROGRAMS		22	2.18	18	1.76	22	1.91
22 CAREER CLUBS		2	0.20	0	0.0	2	0.17
23 CLASSES IN CAREER PLANNING		18	1.78	12	1.17	12	1.04
24 JOB SHADOWING (OBSERVING A WORKER)		4	0.40	6	0.59	7	0.61
25 VISITS TO JOB SITES		13	1.29	8	0.78	9	0.78
26 WORK STUDY OR INTERNSHIP PROGRAMS		6	0.59	5	0.49	4	0.35
27 VOLUNTEER WORK ARRANGED BY SCHOOL		0	0.0	2	0.20	1	0.09
28 MEETING WITH FORMER STUDENTS		2	0.20	1	0.10	4	0.35
29 MEETING WITH OTHER WORKERS OR EMPLOYERS		15	1.49	16	1.56	20	1.74
30 OTHER ACTIVITIES ARRANGED BY SCHOOL		3	0.30	2	0.20	5	0.43
31 WORK		37	3.67	47	4.59	37	3.21
32 WATCHING PEOPLE AT WORK		4	0.40	8	0.78	12	1.04
33 WATCHING TV		13	1.29	9	0.88	16	1.39
34 MOVIES		3	0.30	3	0.29	1	0.09
35 CLUBS		4	0.40	2	0.20	4	0.35
36 GENERAL READING		25	2.48	27	2.64	33	2.86
37 OTHER ACTIVITIES OUTSIDE SCHOOL		11	1.09	8	0.78	8	0.69
PEOPLE AT SCHOOL	(Q. 1 -	1	0.10	3	0.29	4	0.35
PEOPLE OUTSIDE OF SCHOOL	(Q. 7 -	5	0.50	2	0.20	6	0.52
MATERIALS AT SCHOOL	(Q. 12 -	6	0.59	1	0.10	5	0.43
PLACES TO GET INFORMATION OUTSIDE OF SCHOOL	(Q. 17 -	0	0.0	1	0.10	0	0.0

(CONTINUED)

NUMBER OF OBSERVATIONS	STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
(ITEM CONTINUED)						
Q54 SOURCES OF JOB SECURITY INFORMATION						
ACTIVITIES ARRANGED BY SCHOOL (Q. 21 -	0	0.0	1	0.10	1	0.09
ACTIVITIES OUTSIDE OF SCHOOL (Q. 31 -	1	0.10	2	0.20	3	0.26
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	2	0.20	3	0.29	4	0.35
NO RESPONSE	213	21.11	136	13.28	184	15.97
TOTAL	1009	63.14	1024	65 85	1152	66.63
Q55 HOW MUCH DO YOU KNOW ABOUT HELPING OTHERS FOR THE JOB IN QUESTION 46?						
A GREAT DEAL	385	25.89	347	23.73	382	23.65
SOME	482	32.41	533	36.46	519	32.14
VERY LITTLE	231	15.53	214	14.64	265	16.41
NOTHING	295	19.84	313	21.41	363	22.48
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	2	0.12
NO RESPONSE	94	6.32	55	3.76	84	5.20
TOTAL	1487	93.05	1462	94.02	1615	93.41
Q56 SOURCES OF INFORMATION ON HELPING OTHERS						
1 TEACHERS	83	7.56	103	9.41	77	6.60
2 COUNSELORS	50	4.55	69	6.31	58	4.97
3 PRINCIPAL OR ASSISTANT PRINCIPAL	3	0.27	1	0.09	2	0.17
4 LIBRARIAN	2	0.18	8	0.73	4	0.34
5 FRIENDS	33	3.01	29	2.65	26	2.23
6 SOMEONE ELSE AT SCHOOL	5	0.46	7	0.64	5	0.43
7 PARENTS OR RELATIVES	124	11.29	145	13.25	167	14.32
8 FRIENDS OUTSIDE SCHOOL	23	2.09	11	1.01	22	1.89
9 SOMEONE IN THIS FIELD	117	10.66	141	12.89	163	13.98
10 EMPLOYMENT SERVICE REP	5	0.46	3	0.27	2	0.17
11 SOMEONE ELSE OUTSIDE SCHOOL	21	1.91	23	2.10	26	2.23
12 BOOKS, MAGAZINES, PAMPHLETS, REPORTS	117	10.66	164	14.99	146	12.52
13 FILMS, TAPES, CASSETTES	11	1.00	9	0.82	17	1.46
14 MICROFICHE	5	0.46	6	0.55	3	0.26
15 COMPUTER	7	0.64	4	0.37	18	1.54
16 OTHER MATERIALS AT SCHOOL	3	0.27	7	0.64	3	0.26
17 PUBLIC LIBRARY	26	2.37	17	1.55	20	1.72
18 DISTRICT OR REGIONAL CAREER CENTER	3	0.27	2	0.18	4	0.34
19 STATE EMPLOYMENT OFFICE	3	0.27	1	0.09	0	0.0
20 OTHER PLACE OUTSIDE OF SCHOOL	20	1.82	13	1.19	17	1.46
21 CAREER DAYS OR ASSEMBLY PROGRAMS	22	2.00	24	2.19	19	1.63

(CONTINUED)

NUMBER OF OBSERVATIONS		STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES		FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
(ITEM CONTINUED)							
Q56 SOURCES OF INFORMATION ON HELPING OTHERS							
22 CAREER CLUBS		7	0.64	2	0.18	3	0.26
23 CLASSES IN CAREER PLANNING		20	1.82	13	1.19	12	1.03
24 JOB SHADOWING (OBSERVING A WORKER)		5	0.46	8	0.73	12	1.03
25 VISITS TO JOB SITES		13	1.18	15	1.37	13	1.11
26 WORK STUDY OR INTERNSHIP PROGRAMS		7	0.64	7	0.64	8	0.69
27 VOLUNTEER WORK ARRANGED BY SCHOOL		5	0.46	4	0.37	4	0.34
28 MEETING WITH FORMER STUDENTS		6	0.55	5	0.46	3	0.26
29 MEETING WITH OTHER WORKERS OR EMPLOYERS		11	1.00	10	0.91	15	1.29
30 OTHER ACTIVITIES ARRANGED BY SCHOOL		5	0.46	3	0.27	6	0.51
31 WORK		43	3.92	54	4.94	42	3.60
32 WATCHING PEOPLE AT WORK		32	2.91	24	2.19	27	2.32
33 WATCHING TV		20	1.82	16	1.46	22	1.89
34 MOVIES		6	0.55	6	0.55	3	0.26
35 CLUBS		9	0.82	10	0.91	16	1.37
36 GENERAL READING		37	3.37	24	2.19	42	3.60
37 OTHER ACTIVITIES OUTSIDE SCHOOL		10	0.91	7	0.64	13	1.11
PEOPLE AT SCHOOL	(Q. 1 -	2	0.18	2	0.18	3	0.26
PEOPLE OUTSIDE OF SCHOOL	(Q. 7 -	3	0.27	5	0.46	6	0.51
MATERIALS AT SCHOOL	(Q. 12 -	3	0.27	2	0.18	3	0.26
PLACES TO GET INFORMATION OUTSIDE OF SCHOOL	(Q. 17 -	0	0.0	1	0.09	0	0.0
ACTIVITIES ARRANGED BY SCHOOL	(Q. 21 -	4	0.36	2	0.18	1	0.09
ACTIVITIES OUTSIDE OF SCHOOL	(Q. 31 -	3	0.27	3	0.27	4	0.34
NOT APPLICABLE		0	0.0	0	0.0	0	0.0
DON'T KNOW		2	0.18	5	0.46	6	0.51
NO RESPONSE		215	19.58	128	11.70	189	16.21
TOTAL		1098	68.71	1094	70.35	1166	67.44
Q57 HOW MUCH DO YOU KNOW ABOUT USUAL ACTIVITIES FOR THE JOB IN QUESTION 46?							
A GREAT DEAL		414	27.84	429	29.34	507	31.39
SOME		615	41.36	667	45.62	668	41.36
VERY LITTLE		228	15.33	193	13.20	207	12.82
NOTHING		142	9.55	120	8.21	152	9.41
NOT APPLICABLE		0	0.0	0	0.0	0	0.0
DON'T KNOW		0	0.0	0	0.0	1	0.06
NO RESPONSE		88	5.92	53	3.63	80	4.95
TOTAL		1487	93.05	1462	94.02	1615	93.41

(CONTINUED)

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	STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS	1598		1555		1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
Q58 SOURCES OF INFORMATION ON THE USUAL ACTIVITIES IN A JOB						
1 TEACHERS	103	8.19	115	8.92	113	8.18
2 COUNSELORS	35	2.78	52	4.03	43	3.11
3 PRINCIPAL OR ASSISTANT PRINCIPAL	3	0.24	1	0.08	1	0.07
4 LIBRARIAN	4	0.32	5	0.39	4	0.29
5 FRIENDS	36	2.86	52	4.03	29	2.10
6 SOMEONE ELSE AT SCHOOL	3	0.24	7	0.54	4	0.29
7 PARENTS OR RELATIVES	145	11.54	164	12.72	215	15.56
8 FRIENDS OUTSIDE SCHOOL	24	1.91	23	1.78	39	2.82
9 SOMEONE IN THIS FIELD	194	15.43	220	17.07	235	17.00
10 EMPLOYMENT SERVICE REP	5	0.40	4	0.31	2	0.14
11 SOMEONE ELSE OUTSIDE SCHOOL	32	2.55	27	2.09	32	2.32
12 BOOKS, MAGAZINES, PAMPHLETS, REPORTS	132	10.50	170	13.19	151	10.93
13 FILMS, TAPES, CASSETTES	14	1.11	17	1.32	17	1.23
14 MICROFICHE	4	0.32	7	0.54	8	0.58
15 COMPUTER	13	1.03	8	0.62	23	1.66
16 OTHER MATERIALS AT SCHOOL	2	0.16	6	0.47	7	0.51
17 PUBLIC LIBRARY	28	2.23	12	0.93	23	1.66
18 DISTRICT OR REGIONAL CAREER CENTER	4	0.32	3	0.23	4	0.29
19 STATE EMPLOYMENT OFFICE	1	0.08	0	0.0	0	0.0
20 OTHER PLACE OUTSIDE OF SCHOOL	19	1.51	18	1.40	19	1.37
21 CAREER DAYS OR ASSEMBLY PROGRAMS	28	2.23	24	1.86	26	1.88
22 CAREER CLUBS	1	0.08	1	0.08	3	0.22
23 CLASSES IN CAREER PLANNING	26	2.07	14	1.09	10	0.72
24 JOB SHADOWING (OBSERVING A WORKER)	16	1.27	13	1.01	20	1.45
25 VISITS TO JOB SITES	24	1.91	16	1.24	17	1.23
26 WORK STUDY OR INTERNSHIP PROGRAMS	6	0.48	12	0.93	12	0.87
27 VOLUNTEER WORK ARRANGED BY SCHOOL	4	0.32	8	0.62	4	0.29
28 MEETING WITH FORMER STUDENTS	5	0.40	3	0.23	6	0.43
29 MEETING WITH OTHER WORKERS OR EMPLOYERS	20	1.59	26	2.02	28	2.03
30 OTHER ACTIVITIES ARRANGED BY SCHOOL	11	0.88	4	0.31	5	0.36
31 WORK	55	4.38	72	5.59	60	4.34
32 WATCHING PEOPLE AT WORK	43	3.42	43	3.34	54	3.91
33 WATCHING TV	28	2.23	25	1.94	25	1.81
34 MOVIES	2	0.16	7	0.54	12	0.87
35 CLUBS	9	0.72	8	0.62	9	0.65
36 GENERAL READING	39	3.10	28	2.17	41	2.97
37 OTHER ACTIVITIES OUTSIDE SCHOOL	16	1.27	14	1.09	20	1.45
PEOPLE AT SCHOOL (Q. 1 -	1	0.08	2	0.16	2	0.14
PEOPLE OUTSIDE OF SCHOOL (Q. 7 -	3	0.24	6	0.47	7	0.51
MATERIALS AT SCHOOL (Q. 12 -	5	0.40	4	0.31	4	0.29
PLACES TO GET INFORMATION OUTSIDE OF SCHOOL (Q. 17 -	1	0.08	1	0.08	0	0.0

(CONTINUED)

	STRATUM1		STRATUM2		STRATUM3	
NUMBER OF OBSERVATIONS	1598		1555		1729	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
(ITEM CONTINUED)						
Q58 SOURCES OF INFORMATION ON THE USUAL ACTIVITIES IN A JOB						
ACTIVITIES ARRANGED BY SCHOOL (Q. 21 -	3	0.24	1	0.08	1	0.07
ACTIVITIES OUTSIDE OF SCHOOL (Q. 31 -	2	0.16	0	0.0	6	0.43
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	2	0.16	2	0.16	2	0.14
NO RESPONSE	188	14.96	121	9.39	155	11.22
TOTAL	1257	78.66	1289	82.89	1382	79.93
Q59 WHY DID YOU USE THE SOURCE IN QUESTION 58?						
ONLY SOURCE I KNEW ABOUT	147	11.69	120	9.31	131	9.48
I WAS TOLD TO USE THIS SOURCE	241	19.17	214	16.60	226	16.35
I WANTED TO REALLY FIND OUT ABOUT THE JOB	605	48.13	661	51.28	637	46.09
I WANTED TO GET INFORMATION FROM SOMEONE WHO KNEW ME	321	25.54	352	27.31	359	25.93
IT WAS EASY TO GET INFORMATION FROM THIS SOURCE	522	41.53	564	43.75	661	47.83
I THOUGHT INFORMATION FROM THIS SOURCE WOULD BE EASY T	366	29.12	425	32.97	418	30.25
I THOUGHT INFORMATION FROM THIS SOURCE WOULD BE UP TO	448	35.64	477	37.01	544	39.36
I WANTED TO GET A GENERAL IDEA OF THAT OCCUPATION	626	49.80	688	53.37	695	50.29
I WASN'T REALLY LOOKING FOR INFORMATION AT THE TIME	103	8.19	106	8.22	119	8.61
OTHER	68	5.41	102	7.91	109	7.89
NOT APPLICABLE	0	0.0	0	0.0	0	0.0
DON'T KNOW	0	0.0	0	0.0	0	0.0
NO RESPONSE	21	1.67	20	1.55	33	2.39
TOTAL	1257	78.66	1289	82.89	1382	79.93
Q60 WHAT THREE SOURCES OF INFORMATION ARE MOST INPORTANT?						
1 TEACHERS	14	31.11	4	6.67	12	20.00
2 COUNSELORS	26	57.78	29	48.33	26	43.33
3 PRINCIPAL OR ASSISTANT PRINCIPAL	2	4.44	1	1.67	2	3.33
4 LIBRARIAN	7	15.56	1	1.67	2	3.33
5 FRIENDS	6	13.33	11	18.33	11	18.33
6 SOMEONE ELSE AT SCHOOL	2	4.44	1	1.67	4	6.67
7 PARENTS OR RELATIVES	16	35.56	18	30.00	22	36.67
8 FRIENDS OUTSIDE SCHOOL	3	6.67	7	11.67	6	10.00
9 SOMEONE IN THIS FIELD	19	42.22	28	46.67	24	40.00
10 EMPLOYMENT SERVICE REP	12	26.67	2	3.33	7	11.67
11 SOMEONE ELSE OUTSIDE SCHOOL	5	11.11	3	5.00	2	3.33
12 BOOKS, MAGAZINES, PAMPHLETS, REPORTS	15	33.33	14	23.33	16	26.67
13 FILMS, TAPES, CASSETTES	11	24.44	2	3.33	9	15.00
14 MICROFICHE	1	2.22	0	0.0	3	5.00
15 COMPUTER	9	20.00	4	6.67	10	16.67
16 OTHER MATERIALS AT SCHOOL	7	15.56	4	6.67	6	10.00
17 PUBLIC LIBRARY	17	37.78	6	10.00	18	30.00

(CONTINUED)

NUMBER OF OBSERVATIONS		STRATUM1 1598		STRATUM2 1555		STRATUM3 1729	
ITEMS AND ALTERNATIVES		FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
(ITEM CONTINUED)							
Q60 WHAT THREE SOURCES OF INFORMATION ARE MOST INPORTANT?							
18 DISTRICT OR REGIONAL CAREER CENTER		10	22.22	5	[illegible].33	6	10.00
19 STATE EMPLOYMENT OFFICE		10	22.22	4	6.67	10	16.67
20 OTHER PLACE OUTSIDE OF SCHOOL		6	13.33	5	8.33	11	18.33
21 CAREER DAYS OR ASSEMBLY PROGRAMS		8	17.78	6	10.00	17	28.33
22 CAREER CLUBS		6	13.33	2	3.33	2	3.33
23 CLASSES IN CAREER PLANNING		8	17.78	7	11.67	5	8.33
24 JOB SHADOWING (OBSERVING A WORKER)		8	17.78	7	11.67	2	3.33
25 VISITS TO JOB SITES		9	20.00	8	13.33	10	16.67
26 WORK STUDY OR INTERNSHIP PROGRAMS		8	17.78	3	5.00	4	6.67
27 VOLUNTEER WORK ARRANGED BY SCHOOL		5	11.11	0	0.0	2	3.33
28 MEETING WITH FORMER STUDENTS		3	6.67	1	1.67	2	3.33
29 MEETING WITH OTHER WORKERS OR EMPLOYERS		5	11.11	6	10.00	9	15.00
30 OTHER ACTIVITIES ARRANGED BY SCHOOL		4	8.89	2	3.33	5	8.33
31 WORK		10	22.22	8	13.33	15	25.00
32 WATCHING PEOPLE AT WORK		11	24.44	6	10.00	7	11.67
33 WATCHING TV		9	20.00	5	8.33	4	6.67
34 MOVIES		5	11.11	4	6.67	9	15.00
35 CLUBS		4	8.89	2	3.33	1	1.67
36 GENERAL READING		3	6.67	4	6.67	9	15.00
37 OTHER ACTIVITIES OUTSIDE SCHOOL		6	13.33	2	3.33	4	6.67
PEOPLE AT SCHOOL	(Q. 1 -	0	0.0	1	1.67	1	1.67
PEOPLE OUTSIDE OF SCHOOL	(Q. 7 -	0	0.0	1	1.67	2	3.33
MATERIALS AT SCHOOL	(Q. 12 -	0	0.0	1	1.67	0	0.0
PLACES TO GET INFORMATION OUTSIDE OF SCHOOL	(Q. 17 -	0	0.0	1	1.67	1	1.67
ACTIVITIES ARRANGED BY SCHOOL	(Q. 21 -	0	0.0	0	0.0	1	1.67
ACTIVITIES OUTSIDE OF SCHOOL	(Q. 31 -	0	0.0	2	3.33	1	1.67
NOT APPLICABLE		0	0.0	0	0.0	0	0.0
DON'T KNOW		0	0.0	0	0.0	0	0.0
NO RESPONSE		3	6.67	1	1.67	6	10.00
TOTAL		45	2.82	60	3.86	60	3.47